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## An Analysis of the Search Stage of the College Choice Process Undertaken by Community College Transfer Students

Judith Jean Lorenc Becker  
*Loyola University Chicago*

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AN ANALYSIS OF THE SEARCH STAGE  
OF THE COLLEGE CHOICE PROCESS  
UNDERTAKEN BY  
COMMUNITY COLLEGE TRANSFER STUDENTS

by

Judith Jean Lorenc Becker

A Dissertation Submitted to the Faculty of the Graduate  
School of Loyola University of Chicago in Partial  
Fulfillment of the Requirements for the Degree of  
Doctor of Philosophy

April

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## DEDICATION

To my parents, who always said it was possible

## VITA

The author, Judith Jean Lorenc Becker, is the daughter of Eugene C. and Lillian (Mika) Lorenc. She was born on December 11, 1947 in Chicago, Illinois.

Her elementary education was obtained in a private school in Chicago, Illinois. Her secondary education was completed in 1965 at Notre Dame High School for Girls, Chicago, Illinois.

In September, 1965, she entered Loyola University of Chicago, receiving the degree of Bachelor of Arts in English in June, 1969.

In September, 1969, she was granted an assistantship with the Department of English at Loyola University of Chicago. She received the Master of Arts degree in English in January, 1973. In January, 1977, she began graduate studies in guidance and counseling. She received the Master of Education degree from Loyola University of Chicago in May, 1979.

The author has been employed by Loyola University of Chicago since 1976. She currently holds the position of Associate Director in the Admissions Counseling Office. As part of her responsibilities as Transfer Coordinator, she counsels prospective transfer students and visits community colleges in the Chicago metropolitan area.

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## CHAPTER I

### INTRODUCTION

The changing demography of the American people will have a profound impact on American higher education over the next 15 years. For example, during this period a 25% decline in the 18-to-22 year old population is predicted to result in a similar decline in full-time college student enrollment of 5 to 15% (Carnegie Council on Policy Studies in Higher Education, 1982). Moreover, during this 15-year period, the northeast and northcentral regions of the country will suffer the greatest decline in population, possibly as much as 40%, due to continued growth of the Sunbelt States. A major problem in predicting college enrollments hinges on the fact that population changes are not distributed evenly among all parts of the population. Current demographic trends indicate that some ethnic groups will be less numerous in the future (Cubans, for example, with 1.3 children per female and whites with 1.7 children per female) while others will be over-represented in the next generations (Blacks with 2.4 children per female and Mexican-Americans with 2.9 children per female) (Hodgkinson, 1985, p. 3). This growth of minority populations will continue to such a degree that by the year 2000, one-third of the American people will be non-white. Despite these future increases in the minority population, college

enrollment trends for Blacks and especially Hispanics cannot be projected with any degree of certainty. In 1985, 76% of Black youth graduated from high school as compared with 86% of white students. It is estimated that at the present time only about 60% of Hispanic youth graduate from high school (Hodgkinson, 1985). In the absence of concerted action to raise the high school completion rates of Blacks and Hispanics, their increasing number in the age group will cause a decline in the college student enrollment of possibly 50%--twice the predicted rate--by the year 2000 (Breneman, 1982; Hodgkinson, 1983). Adult and part-time student enrollments in higher education will continue to rise, with a projected 10% increase in the proportion of students enrolled on a part-time basis. These demographic changes when combined with economic problems such as budgetary inflation and restricted government spending will most adversely affect the private, less selective, liberal arts colleges. However, all but a small number of colleges and universities will experience enrollment and financial difficulties during these years (Baldrige, Kemerer, & Green, 1982).

The population declines, changes in the racial/ethnic composition, and regional population shifts will produce a dramatically different student body composition. In 1960, the undergraduate population was composed predominantly of young white males attending college as full-time students. By the year 2000, there will be more women than men in college, more students over 21 as 21 and under, and almost as many part-time as full-time attendees. In addition, over 30% of the student

body will be composed of minority students (Hodgkinson, 1983). Approximately one-half of the students predicted to be in the college classroom in the year 2000 would not have been there if the institutional composition of 1960 had continued unchanged (Carnegie Council on Policy Studies in Higher Education, 1982).

The prospect of a sharp decline in college applications and subsequent lower enrollments has generated growing interest in the college selection process: how and why students choose to attend a particular college. The reasons for this renewed interest are threefold.

The primary reason is the increasingly competitive environment in higher education (Riesman, 1980). The declining number of high school graduates has placed tremendous pressure on college administrators to seek more effective ways to attract students. In order to gain or maintain a more competitive edge in the recruitment game, many colleges and universities are spending substantial sums of money to develop sophisticated marketing strategies, more appealing programs, and more attractive publications (Kotler, 1975). These non-profit marketing strategies depend upon the insights provided by college choice research. Greater knowledge of consumer behavior leads to more effective marketing activities (D. Chapman, 1981; Litten, 1982).

Secondly, interest in the process of student college choice has also been sparked by public policy issues (Jackson, 1982; Litten, 1982). Understanding college choice is essential for state and federal governments as they become more involved in assuring access and choice in

higher education. Public policy issues related to student financial aid and the controversy over educational excellence have stimulated interest in the college selection process.

Finally, higher education as a field of study is maturing (Hossler, 1984a). As a result, the range of questions being raised by researchers interested in higher education has been growing. Understanding the factors that influence the college choice process is an area worth further study. The qualities of students attracted by a college or university play a major role in shaping the unique characteristics of that campus.

Higher education administrators are thus becoming increasingly interested in the numerous models of student college choice and detailed analyses of marketing strategies that have been developed within the past five years (D. Chapman, 1981; R. Chapman, 1984; Hossler, 1984b; Jackson, 1982; Litten, Sullivan, & Brodigan, 1983). These recent studies focus on the decision-making processes undertaken by high school seniors in selecting colleges and the subsequent implications for recruitment by colleges and universities.

Most of the recent models of student college choice divide the selection process into three specific phases or stages (Hanson & Litten, 1982; Hossler, 1984a; Jackson, 1982). Typically, these models include first a predisposition or preference stage during which the student makes the decision to attend an institution of higher learning. This initial predisposition stage is actually a developmental process that

occurs over several years. The interaction of environmental and personal variables such as socioeconomic status, student ability and achievement, race, and sex, results in a predisposition toward education in general, and higher education in particular.

Three distinct types of students can be identified at the end of the predisposition stage. According to Jackson (1978), these three types include: (1) "whiches"--those students who never seriously consider not attending college; (2) "whethers"--those students who apply to one or two local colleges but may not enroll; and (3) "nots"--those students who never really consider attending college. Only the "whiches" and the "whethers" move to the second stage.

Secondly, the search or exploratory stage consists of the information-gathering activities used by the student in investigating colleges and universities. During this stage, the student begins to more carefully assess possible sources of financial aid, and to seek advice from parents, friends, high school counselors and teachers, and others considered significant to the student. These activities are influenced by the characteristics of institutions of higher education such as type, cost, location, and availability of financial aid. The search stage ends with the formation of a "choice set" of colleges to which the student will apply.

The final choice or evaluation stage begins with the student making application to his/her choice set of institutions which can be composed of one or more colleges. The student then narrows the choice set



to a single element which becomes the institution of matriculation. The selection process is influenced by institutional pricing policies and college communication strategies, such as printed materials and personal contact activities of admissions counselors. The choice stage ends with the student's decision to enroll in a particular institution.

As helpful as these models are in understanding the factors that influence the college choice process, they all share several limitations. First, and most importantly, these models are based on inference and observations, rather than on established and validated theory. The models were developed simply to provide a framework for continued research on college choice (D. Chapman, 1981).

Secondly, the models were constructed in order to explain the process high school students use in selecting a college or university to attend. Developed as a result of the projected decline of high school-aged students, these models focus on the population college administrators wish to recruit more effectively. Thus, it is understandable that the studies used by the developers of the models examine the geographic, economic, and academic factors which influence the college choice process of high school seniors. These models were never intended to be used with any non-traditional population: adult learners, part-time students, or community college transfer students.

Yet, for economic, academic, as well as geographic reasons, many students today choose to begin their college careers in a two-year college rather than a four-year institution. Although some transfer to

senior institutions after one year or less at the community college, many students enter baccalaureate-oriented programs and earn associate degrees prior to transfer. In academic year 1980-81, about one-third of the total 416,000 associate degrees awarded by community colleges were nonoccupational arts and sciences degrees, earned primarily as credit towards a four-year degree (Standard Education Almanac, 1983). According to a study conducted by the Illinois Community College Board (1986), a total of 9,757 students transferred from Illinois two-year colleges to Illinois senior colleges and universities for the fall 1979 term. About 38% of these students had earned associate degrees prior to transferring.

Despite the large number of students transferring from community colleges to four-year institutions, little attention has been given to the decision-making processes undertaken by transfer students as they select one institution over another.

### Purpose of the Study

The purpose of this study is to examine the information-gathering process used by community college students who are involved in the search stage of the college choice process. By making the decision to attend an institution of higher learning, students enrolled in two-year colleges have completed the college selection process once. The decision to transfer to a four-year institution, however, requires them to complete the entire process a second time. The present study focuses on the ways community college students intending to transfer gather

information about four-year colleges and universities in order to make a second enrollment decision.

The study examines the quality and quantity of information community college students receive from their parents, friends, college classmates, counselors and teachers at both the high school and community college levels, and others considered significant. It also examines when these significant others are most influential in the college selection process. The study also identifies the characteristics of four-year institutions considered most important to community college students prior to applying to their choice set of schools. In addition, the study indicates the number of four-year institutions to which community college students intend to apply as they gather information during the search stage.

The many ways four-year institutions communicate information to community college students through printed materials or admission office services, such as campus visits or interviews with admission counselors, are analyzed according to usage by the student and the degree of assistance in the search process. In addition, the study indicates when these services are most influential in the process of selecting four-year schools. Finally, the study determines when during the search stage of the college choice process community college students finalize their selection of four-year institutions to which to apply.

### Research Objectives

This study is exploratory research into the process and activities that make up the search stage of college choice. Thus, in place of hypotheses, the following objectives serve as a guide to this research.

1. To examine the role of significant others in the search phase: (a) to determine which significant others are influential sources of information for community college students during the search stage; and (b) to determine when during the search stage they are most influential.

2. To determine which four-year college characteristics are most important to community college students by the end of the search stage, prior to applying to their choice set of institutions.

3. To examine the role of four-year college communication strategies in the search phase: (a) to determine which four-year college communication strategies are influential for community college students during the search stage; and (b) to determine when during the search stage they are most influential.

4. To examine the role of information-gathering activities in the search phase: (a) to determine which information-gathering activities are actually conducted during the search stage by community college transfer students; and (b) to determine when during the search stage they are most influential.

5. To determine the number of institutions in the community college students' choice set and when the choice set is formed.

### Significance of the Study

The significance of this study lies in its (1) use of a theory-based model of college choice, (2) selection of a community college transfer population, (3) focus on the search stage of the college choice process, (4) findings on the influence of printed recruitment materials used by transfer students, and (5) value to enrollment managers in higher education.

As previously mentioned, recent studies of student college choice focus on the decisions made by high school seniors in selecting colleges and universities. All the models of college choice discussed in the literature are based on observation and subjective judgment of student behavior. This study uses Hossler's Integrated Theory-Driven Model of College Choice (1986) which is based on Krumboltz's Social Learning Theory of Career Selection (Krumboltz, Mitchell, & Jones, 1976). The study, therefore, is significant in that it uses a theory-based model of college choice.

In addition, this study differs from previous college choice research in that the intended population is composed of community college students who plan to transfer to four-year colleges and universities, rather than of high school seniors. The study focuses on the influence of significant others, college characteristics, and college communication strategies on the college selection process undertaken by transfer students.

Using a theory-based model of college choice with a population other than that of high school students, this study makes a significant contribution to the field of college choice research. Not only will it add to the growing body of literature on the college selection process in general, but it will also pioneer research into the unexplored area of college choice decisions undertaken by community college transfer students. The factors that are determined to influence the college selection process of transfer students can be utilized in future comparison studies with high school students.

Since most of the existing studies that identify factors that correlate with college choice focus exclusively on the final stage of the enrollment decision process (Hossler, 1985), this study will provide needed insights into the second or search stage of college choice. Knowing what types of information are used by community college students prior to their actual matriculation will assist researchers in analyzing the complexity of the college choice process.

This research will also add to the existing literature on the influence of printed recruitment materials and specifically on the importance community college transfer students assign to these materials. These findings will help four-year colleges and universities to provide the kinds of information and services that can have a direct effect on prospective students' choice.

Finally, this study will prove valuable to enrollment managers at four-year institutions who are concerned with attracting desirable

transfer applicants. As enrollment managers realize the importance of non-traditional populations to their institutions, studies such as this one which indicate how students are attracted to one college over another will be utilized in recruitment procedures.

### Conceptual Framework

This study will examine the information-gathering process involved in the search stage of college choice using Hossler's Integrated Theory-Driven Model of College Choice (1986). Hossler's model is derived from Krumboltz's Social Learning Theory of Career Selection (Krumboltz, Mitchell, & Jones, 1976), which states that the process of career selection is determined by four categories of influencers: (1) genetic endowment and special abilities, (2) environmental conditions and events, (3) learning experiences, and (4) task approach skills.

Genetic endowment and special abilities are inherited qualities or dispositions that may limit an individual's skills and preferences in the selection of a career. These inherited qualities include intelligence, physical characteristics, race, and sex. Environmental conditions and events are factors over which the individual has no control, but which influence career skills and preferences. Such factors include technological developments, labor laws, family resources, and community influences.

The third category of influencers, learning experiences, can be instrumental or associative in nature. In instrumental learning experiences, individuals emit behavioral and cognitive responses in order to

generate positive consequences for themselves from their environment. "Saying hello to a stranger, cutting down a tree, making an angelfood cake, or kissing someone of the opposite sex" (Krumboltz et al., 1976, p.72) are examples of instrumental learning experiences. The skills necessary for successful career planning are learned through successive instrumental learning experiences.

In associative learning experiences, the individual learns by observation of the environment rather than by direct action. Through words, films, books, observation, and direct experience, individuals learn occupational stereotypes such as "all lawyers are crooked" or "plumbers make a lot of money." These observational learning experiences can form associations which last a lifetime and result in incorrect generalizations about entire occupations.

The final category of influencers, task approach skills, includes the skills, performance standards and values, work habits, perceptual and cognitive processes, mental sets, and emotional responses an individual brings to each new task or problem. Through successive learning experiences, these task approach skills become modified. Thus, they are both the outcomes of learning experiences and the factors that influence new learning experiences.

As a result of interactions among the categories of influencers, an individual experiences three types of consequences: (1) self-observation generalizations, (2) task approach skills, and (3) repertoire of behaviors. Self-observation generalizations are overt or covert



statements evaluating one's own actual or vicarious performance in relation to learned standards (e.g., "I could never be as great as Thomas Jefferson even though I write better than my classmates"). Self-observation generalizations vary according to the standards used in the comparisons as well as to the situation itself. Krumboltz and his colleagues note the importance of self-observation generalizations in regard to preferences which become the building blocks of career decisions (p. 74).

The second consequence of the interaction among influencers includes task approach skills. They are defined as cognitive and performance abilities and emotional predispositions for coping with the environment, interpreting it in relation to self-observation generalizations, and making covert or overt predictions about future events. From a social learning theory perspective, the methods of setting goals, generating alternatives, and making decisions are sets of task approach skills. The third consequence is the repertoire of behaviors the individual emits in response to new problems and tasks.

Krumboltz's Social Learning Theory of Career Selection provides the framework for Hossler's model of college choice (1986). The same categories of influencers of career selection are used by Hossler to explain the college selection process. These four categories of influencers, which include genetic endowment and special abilities, environmental conditions and events, learning experiences, and task approach skills, are all incorporated into each of Hossler's three phases of college choice: Predisposition, Search, and Choice.

The effect of each influencer on the college choice process is dependent on each of the others. Environmental conditions and learning experiences in both the predisposition and search phases, as well as environmental conditions and task approach skills in the choice phase are the most influential factors in each phase. Hossler describes these as the "primary" factors and the remaining factors as "secondary" influencers in each phase.

During the predisposition phase, environmental conditions and learning experiences are considered the primary influencers. According to Hossler, environmental conditions, such as the characteristics and attitudes of parents and other family members, exert the greatest influence on this stage. In addition to such learning experiences as success in school and the quality of schooling, the model suggests that the degree of success with interpersonal relationships also affects the predisposition phase.

Once individuals decide they are interested in pursuing a postsecondary education option, they move into the search stage. During this second phase, environmental conditions and events and learning experiences are once again posited to be the most important influencers. Although parents continue to play a significant role during the search stage, peers, counselors, and teachers also influence the college choice process. Environmental conditions in the search phase also include the types of colleges available to the student and the communication strategies used by colleges to affect the college choice decision. The

interaction of the two primary influencers and the two secondary influencers in the search phase results in the narrowing of the search process through the various information-gathering activities conducted by students. Task approach skills in this stage consist of the actual information-gathering activities performed. The search phase ends with students applying to their choice set of institutions.

In the choice phase, students, now as college applicants, make their decision as to which institution they will actually attend. Environmental conditions and events together with the task approach skills or decision-making styles used by the applicants are the primary influencers of the enrollment decision.

Parents, peers, counselors, and teachers continue to play an important role in the choice stage. College communication strategies are also significant in that the applicants will now be informed of their financial aid awards. This financial aid information plus institutional "courtship behaviors" such as special campus visits, banquets, and letters from the president can greatly influence the final step in this three-phase model of college choice, the matriculation decision.

Hossler's model, therefore, uses Krumboltz's Social Learning Theory of Career Selection to explain the college choice process. The four categories of influencers, identified by Krumboltz as integral to the career selection process, interact in Hossler's model to move the individual from the initial predisposition phase, through the search stage, to the final choice phase.

### Definition of Terms

Student college choice. Student college choice is the complex choice process undertaken by college-bound students which ultimately results in the enrollment decision.

Search stage. The search stage, the second or middle phase in the college choice process, begins with the student's decision to pursue a postsecondary education option and ends with application to the student's choice set of institutions. R. Chapman (1984, p.1) defines the search process as "searching for the attribute values which characterize the college alternatives . . . (and search) may also entail learning about and identifying the right attributes to consider."

Choice set of institutions. The choice set of institutions is that rank-ordered and narrowed set of colleges and universities selected by the student according to some rating scheme. The institutions that form the choice set are the ones to which the student will actually apply.

Information-gathering activities. Information-gathering activities are those behaviors involving significant others, college characteristics, and college communication strategies by which students seek out and acquire information about four-year institutions.

College communication strategies. College communication strategies are the means through which colleges provide information to interested students; some of these strategies include the college catalog, other printed materials, and visits by admission representatives to

community colleges. Unlike tuition costs or the availability of financial aid, these strategies are not part of institutional policy and, thus, can be easily changed.

### Limitations of the Study

This study is limited by the specific population chosen by the researcher and by those from the population who decide to participate. Non-respondents are not addressed, and no comparisons are made between respondents and non-respondents. The results found in Chapter IV are limited to a group of respondents from one particular public community college, and as such, are not generalizable to all community college students or even to the entire student population at that one community college. Furthermore, these results are not generalizable to the population of high school seniors involved in college choice decisions.

This study is limited to a population of full-time students enrolled in transfer curricula at Triton College (River Grove, Illinois) for the spring 1986 semester who have completed at least 15 semester hours of credit prior to this semester and who intend to transfer to four-year institutions either for the fall 1986 semester or a subsequent semester.

Finally, this study is limited by the specific instrument used by the researcher. Data regarding the members in the respondents' families and the respondents' degree of contact with family members are unavailable. In addition, the instrument does not provide definitions of terms such as "frequently," "occasionally," and "very valuable."

## CHAPTER II

### REVIEW OF RELATED LITERATURE

Three bodies of literature relate to the topic of the college selection process undertaken by community college transfer students: (1) the college choice process, (2) theories of decision making, and (3) the transfer process.

#### College Choice

The first body of literature focusing on the college choice process can be further subdivided into five groups of research studies: descriptive models of college choice, student characteristics and background variables that affect college choice, significant others who affect college choice, institutional characteristics that influence college choice, and college communication strategies.

#### Models of College Choice

In general, the models of college choice examine the interaction of student background characteristics, aspirations, and achievements with student expectations of college, their access to and the availability of institutions of higher learning. Several models (Hossler, 1984a; Jackson, 1982; Litten, 1982) divide the college selection process into three specific stages. Due to the similarity of conceptual framework

and terminology, these three descriptive models will be discussed together. Typically, during the first stage of the college choice process--referred to as the predisposition or preference stage--the student makes the decision to attend an institution of higher education. Jackson (1982) identifies three phases in the college choice process: Preference, Exclusion, and Evaluation. Students' aspirations combine with an assessment of resources in the preference stage to yield a set of criteria for evaluating alternatives. Jackson suggests that the most influential factor in the preference phase is student academic achievement, followed by significant others ("social context"), and thirdly, family background. At the end of the predisposition phase, three distinct types of students can be identified. According to Jackson (1978), these three categories emerge: (1) "whiches"--students who never seriously consider not attending college; (2) "whethers"--students who apply to one or two local colleges but may not actually matriculate; and (3) "nots"--students who never really consider attending college (p. 571). Only the "whiches" and "nots" progress to the second phase.

Hossler (1984a) describes a three-stage college choice model based on the three stages of choice suggested by Jackson (1982). His interactive model includes a number of variables alluded to in Jackson's model but not presented in detail. According to Hossler, the preference stage, which involves the interaction of student characteristics and environmental variables, results in a predisposition toward education, particularly toward higher education (p. 4). He suggests that

background characteristics such as socioeconomic status, student ability and achievement, race, and sex are most influential in producing a predisposition toward college attendance. Less influential characteristics include significant others, student aspirations and attitudes, and the type of high school attended. Using Jackson's definitions, Hossler states that the interaction of this first stage can result in a decision by the "nots" to pursue non-educational alternatives, while the "whiches" and "whethers" begin their examination of educational alternatives in the next phase.

Litten (1982) presents a three-stage model of college choice which differs from those of Jackson (1982) and Hossler (1984a) in that it includes a parallel track for the related financial aid application/decision process. However, the structure of and variables used in the model's three stages--Predisposition, Exploratory, and Application/Matriculation--borrow from the models of D. Chapman (1981) and Jackson (1982). The predisposition stage involves both the student's desire as well as the student's decision to attend an institution of higher education. Based on previous research (Christensen, Melder & Weisbrod, 1972; Medsker & Trent, 1965) including his own, Litten suggests that student background characteristics--primarily socioeconomic status and educational aspiration--and the institutional characteristics of location and the availability of specific academic programs have the greatest influence on the decisions of both male and female students regarding college attendance.



The second stage--usually called the search or exclusion stage--consists of the information-gathering activities used by the student in investigating colleges and universities. During the exclusion phase in Jackson's (1982) model, students consider their options, excluding some as unfeasible and obtaining more information about others. The difficulty in obtaining accurate information, however, leads students typically to exclude from their choice sets colleges they ought to evaluate (Jackson, 1978). At this time, the characteristics of the colleges the student is considering start to interact with the student's preferences. Sociological (Sewell et al., 1957, 1970) and economic (Jackson & Weathersby, 1975) models of student choice lead Jackson (1982) to suggest that location exerts the strongest influence on the student's choice set, followed by the availability of accurate information, and finally by family, academic, and vocational background (p. 240). During the exclusion phase in Hossler's (1984a) model, students who are predisposed to attend college gather information about college attributes and family resources, and determine a choice set of colleges. The activities of this phase are determined by the student's expectations of what a college should "look like" (D. Chapman, 1981), and are influenced by the characteristics of institutions of higher education. Hossler, echoing Jackson's concern, perceives a problem in the determination of the choice set. Hossler contends that this most important stage in the college choice process "is often characterized by incomplete information, ineffective actions, and poor decision making," suggesting that the

general expectations of college are not clear (p. 11). These same problems are also found in the students' evaluation of financial resources. Thus, the lack of accurate knowledge about college costs further increases the likelihood that students will eliminate colleges from their choice set which are actually good choices. However, the more pervasive problem is "that many students needlessly limit the number of institutions in their choice set" (p. 12). Students may mistakenly eliminate a potentially best-choice institution, resulting in dissatisfaction and non-persistence after matriculation at another institution. Based on previous research, Hanson and Litten (1982) suggest that the principal sources of information available to students in their investigation of colleges during the second stage are college catalogs and brochures, high school counselors, parents, peers, and other friends, with parents, friends, and peers being the most important information sources (pp. 80-81).

During the final stage of the college selection process, typically called the choice or evaluation stage, students apply to their choice set of colleges and make the final decision to enroll in a particular institution. Jackson (1982) views this final phase as almost anti-climatic, since most of the major decisions are made before the student reaches this stage. Faced with college and non-college options, each student translates his or her preferences into a rating scheme, rates each option in the choice set, and selects according to these ratings. According to Jackson (1982), research on college-going behavior (Carroll

et al., 1977; Jackson, 1977; Kohn et al., 1976) suggests that in the evaluation phase, factors such as college costs, job benefits, and college location have the strongest influence, followed closely by the interactions of family background and academic experience with these factors (p. 241). The enrollment decision depends, therefore, on both the attributes of the student and the characteristics of the colleges the student perceives to be in his or her choice set. According to Hossler (1984a), during the evaluation stage students develop an application set of colleges which is narrowed to a single choice through the impact of institutional pricing policies and college communication strategies. Hossler agrees with Jackson (1978) and Manski and Wise (1983) that the net price, as opposed to the list price, affects the student's decision to matriculate. For the "whethers," the net price may determine attendance or non-attendance. For the "whiches," the difference between the net price of the two institutions can affect which college will be selected.

College communication strategies include both written materials and the personal contact of college admission counselors. Litten's (1982) model shows how students' choice of college varies according to their sex, race, ability, parents' education, and geographic location. He concludes that parental education "has stronger effects on the conduct of the college selection process than attributes such as race or gender, with the greatest effects on the way information is obtained" (p. 400).

Two final models (D. Chapman, 1981; R. Chapman, 1984) describe the college selection process differently from the above three-stage models. Both models, which are based on observation, have been used in subsequent literature on college choice. D. Chapman (1981) presents a conceptual model of student college choice based on the interaction between student characteristics--socioeconomic status, aptitude, level of educational aspiration, and high school performance--and a series of external influences. These external influences fall into three general categories: (1) the influence of significant persons, (2) the fixed characteristics of the institution, and (3) the institution's own efforts to communicate with prospective students. Both the student characteristics and the external influences "contribute to and are, in turn, shaped by" students' generalized expectations of college life, often described as the "freshman myth" (Stern, 1970). According to D. Chapman, high school seniors, regardless of the college they expect to attend, "share a highly stereotyped, idealized image of college life, an image not representative of any actual institution" (p. 499). As a result of the interaction between student characteristics and external influences, students select and make application to institutions of higher education. Although not verified with research, D. Chapman's model--particularly the variables it identifies--is valuable in that it is one of the first descriptive models of college choice and provides the basis for subsequent models (Hossler, 1984a; Litten, 1982).

R. Chapman (1984) describes a behavioral model of the college selection process which includes a series of five interrelated phases: Pre-Search Behavior, Search Behavior, Application Decision, Choice Decision, and Matriculation Decision. In his model Chapman makes a distinction between "search" and "choice" activities (p. 1). Search activities include determining how students gather information on college attributes and which attributes they will consider in rating institutions of higher education. Activities in the choice phase involve the selection of a college to attend from those schools to which the student has been admitted. Although its beginning is difficult to assess, the pre-search phase involves the extent to which factors such as family circumstances, lifestyle, personal values, and culture influence subsequent stages of the college selection process. R. Chapman suggests that although demographic factors are useful predictors of predisposition to college, personal values and behavior toward high school are even stronger predictors. After making the decision that college is a viable and desirable goal, students enter the second stage which involves search behavior characterized by "extensive and active acquisition of information about possible college alternatives" (p. 5)--the same description of the search stage in the models of Jackson (1982), Litten (1982), and Hossler (1984a). Information may be obtained from a variety of sources. Knowledgeable "others," such as high school teachers and counselors, family members, friends, and college graduates, are consulted with great frequency and in substantial depth. Students write to

colleges requesting catalogs and brochures, receive direct mailings from individual colleges, and visit college campuses. Students use this information in order to determine the attributes possessed by various college alternatives. At some point, the searching activities stop and students choose their choice set of colleges. Search behavior ends when students decide to apply to a set of colleges and universities.

During the application decision phase, students apply usually to those colleges in which they are interested and to which they are likely to be admitted. Since students at this time lack complete information about financial aid, they may apply to colleges which might be too expensive for them. In addition, R. Chapman suggests that students may apply to a "fairly low preference but perceived high-probability-of-admission college" or "backup" school simply to ensure that they receive at least one positive response.

The choice decision phase begins when students have received admission and financial aid decisions from the institutions to which they have applied. Although R. Chapman states that students now possess full information about all relevant college attributes, he adds that there may be some further extended search along the "determinant attributes"--those college characteristics which will definitely make a difference in the decision process. The choice process involves "a trade-off among the multiattribute college alternatives" (p. 9) in the student's choice set of colleges. The trade-off is necessary, according to R. Chapman, because a single college may not be dominant on each of

the student's relevant attributes. Unless the student decides to defer admission to a later time, the choice decision phase ends with the selection of a specific college to attend. The entire college choice decision process comes to an end with the student's actual matriculation to the chosen college.

### Student Characteristics Affecting Choice

A second group of research studies related to the college choice process involves student characteristics and background variables which affect the college selection process. The student characteristics and background variables used in the current study and discussed in this section are student achievement, socioeconomic status, sex, race, parental encouragement, and parental education. The research studies discussed in this section focus primarily on the influence of student characteristics and background variables during the predisposition and search stages of the college choice process.

The importance of student achievement and ability in the college enrollment process is evident. Although researchers have distinguished between achievement (performance) and ability (potential), the two variables are closely related: achievement in school is usually a good indicator of ability (McClelland et al., 1958). Since the present study focuses only on student performance (grade point average) and the college choice process, only research involving achievement will be included. Based on prior research, Hossler (1984b) suggests that achievement influences what type of college or university a student

aspires to attend and whether or not that student will be admitted. Performance in high school is one of the usual criteria used by higher education institutions to accept or reject students. High school GPA and class rank have been found to be positively related to college attendance. In the 1966 SCOPE analysis of high school seniors in California, Tillery (1973) states that 80% of those students who reported their grades to be excellent planned to enroll in college (pp. 93-94). Moreover, 77% of the students who indicated their grades as being poor did not plan to attend any college or university. A study on the correlation between class rank and college matriculation conducted by the State University of New York (1969) suggests that as many as 70% of the students who are in the upper half of their graduating class attend college as compared with about 40% of those in the lower quarter.

A second important background characteristic that correlates with college attendance is socioeconomic status (SES). The existence of a strong positive correlation between SES and enrollment in college has been reported by numerous researchers. Corrazini, Dugan, and Grabowski (1972) conclude that SES has a cumulative effect on the predisposition toward higher education throughout the student's preschool and formal years of schooling. Hanson and Litten (1982) suggest that SES appears to have an important role throughout the entire college selection process. Their study shows that SES not only seems to be an influential factor in the determination of college aspirations and attendance for both men and women, but also affects men and women differently at



several points in the college choice process (p. 76). In their book, Does College Matter?, Solomon and Taubman (1973) report that 78% of students from the upper and upper middle classes enroll in college, whereas only 15% of lower class students matriculate (p. 326). Using data from the National Longitudinal Study of High School Seniors, Peters (1977) finds that students from high SES backgrounds are four times more likely to attend college than students from low SES backgrounds (p. 9). Although some earlier studies suggest that SES and student achievement are equally important factors, Manski & Wise (1983), in College Choice in America, conclude that performance has a greater effect on the college enrollment decision.

Students from different SES families not only enter higher education at different rates, they also distribute themselves differently across the various types of institutions. In their cross-sectional study of student attributes and behaviors in relation to educational aspirations, Tillery and Kildegaard (1973) report that the "perception of economic barriers to continued education is directly related to the educational aspirations of high school seniors" (p. 144). Tillery (1973) adds that students from high SES backgrounds are more likely to attend four-year colleges and universities than students from average to below-average SES backgrounds.

Family income, one aspect of SES, affects college choice as it interacts with institutional cost and financial aid to limit what students believe are their realistic options. In their study of the

relationship of student values, perceptions, and college choices, Davis and Van Dusen (1975) find that upper-income students tend to prefer private institutions, middle-income students tend to prefer state universities, and lower-income students tend to prefer community colleges or state colleges.

Other demographic characteristics which have been related to college attendance include sex and race. Research on the relationship of sex and self-esteem to college aspirations shows significant differences between men and women. Astin, Harway, and McNamara (1976) report that in the 1972 National Longitudinal Study, 75% of the women indicated that they were capable of college work, but only 45% were actually planning to attend college (a difference of 30%); 72% of the men surveyed perceived themselves capable of college and only 55% planned to obtain the baccalaureate degree or higher (a 17% difference). The Cooperative Institutional Research Program (CIRP) national surveys of college freshmen in 1971 and 1976 also indicate evidence of self-esteem problems for women. Almost half of the men and women rated themselves "above average" in academic ability. Yet, women were 8 to 10 percentage points less likely than men to rate themselves "above average" in intellectual self-confidence and in leadership ability (Astin, et al. 1971, 1976).

In their study of 144 Pittsburgh high school seniors based on interviews conducted over a period of six months, Lewis and Morrison (1975) report many differences in college search activities according to sex and race. They find that men and women begin the process of

gathering information on colleges about the same time, but women tend to complete the process earlier. Women also appear to begin the college application process earlier than men, although they complete it about the same time. Moreover, they report that black students appear to start their college selection process later than white students, conduct the process over a longer period of time, and finish considerably later. The average date of first applications for black students was December 20, whereas for white students the date of first application was November 13. The average date of last applications for black students was March 13; the average date of last applications for white students was January 14. Lewis and Morrison also report that black students seem to consider more colleges (10.85) than white students (8.76).

The attitudes of parents also influence the college enrollment decision and, specifically, the student's predisposition to higher education. Conklin and Dailey (1981) find that consistent parental encouragement is positively associated with college attendance. The presence or absence in the home of the assumption that the child will attend college is seen as a more comprehensive measure than frequency of parent-child discussions. Conklin and Dailey suggest that as the amount of encouragement increases, the likelihood of attending a four-year college rather than a two-year college or no college also increases.

At some point during their years of education, students decide whether or not to consider attending college. In his retrospective study of high school students in Milwaukee, Murphy (1981) reports that

more than 70% first considered going to college when they were in grade school (p. 143). However, a majority of the parents in the study thought the decision had been made in the first three years of high school.

Parental education is interrelated with both the college enrollment decision and educational aspirations. Harnqvist (1978) finds that the mother's level of education is more highly correlated with the matriculation decision than is the father's educational level. Froomkin (1970) reports that 98% of college-educated mothers wanted their sons to attend college, while 73% of mothers with eight years of education or less wanted their sons to attend college. In regard to their daughters' education, the college-educated mothers were nearly identical in their aspirations (97%), but of those with eight years of education or less, only 60% wanted their daughters to go to college.

Students whose parents have attended college may begin the college-selection process earlier than students whose parents have not gone to college. Based on their interviews with high school and college students, Gilmour, Spiro and Dolich (1978) report that students whose parents had some college experience were more likely to decide on colleges to which they would apply in the fall of their senior year (75%) than students whose parents had not attended college (57%). Their study also suggests that students with college-educated parents apply to more colleges than students whose parents did not attend college. Forty-four percent of the students in the first group applied to three or more

colleges versus 19% of the second group. In their study of college choice based on College Board data from the New England region, Zemsky and Oedel (1983) report that over 70% of the students from families in which both parents have college degrees concentrated their college choices among regional and national institutions as opposed to local or in-state institutions which do not enjoy national or regional reputations (p. 32). According to Zemsky and Oedel, the data imply that college-educated parents instill in their children more wide-ranging educational aspirations.

#### Significant Others and Choice

The third group of research studies related to college choice involves significant others who affect the college selection process. The significant others used in the study and discussed in this section are student's parents, friends, teachers and counselors. Significant others play an important role in the college choice process in that these are the individuals who provide information and are influential to college-bound students. The research primarily focuses on the influence of significant others during the search and choice stages of the college choice process.

Parents and peers, and to a lesser degree, high school teachers and counselors, have the greatest impact on college enrollment decisions. According to D. Chapman (1981), the influence of these groups operates in three ways: (1) their comments shape the student's expectations of what a particular college is like; (2) they may offer direct

advice as to where the student should go to college; and (3) in the case of close friends, where the friends themselves go to college will influence the student's decision (pp. 494-495). Parents are the most important and influential sources of information, particularly as sources of first information. Studies by Gilmour, Spiro, and Dolich (1978) and Litten, Sullivan and Brodigan (1983) indicate that parents are an important influence in the early stages of the college choice process in that they set the major boundaries for the college search. These authors suggest that parents define the cost, geographic and quality boundaries for their child's selection of a college during the fall of their child's senior year. Murphy (1983) finds that approximately 50% of both students and parents indicate that parents first initiated the idea of attending college. Astin, Harway and McNamara (1976) present data from Project TALENT that show parents and friends were tied as those with whom students discussed their post-high-school plans at least three times. Men tended to consult with their fathers, women with their mothers. Reporting on the 1966 SCOPE seniors, Tillery (1973) states that 43% of the students indicated that their parents were the most helpful people with whom they had consulted about the choice of college. High school counselors ranked second with 22% and other students were third with 16%. Boyer (1987) reports that just over half (51%) the students he surveyed considered their parents the most influential source of information about colleges, followed by friends (23%) and high school counselors (16%). Tillery and Kildegaard (1973) report that students

with more extensive educational goals are more concerned about working out with their parents which college to attend. They suggest that perceptions of college cost affect parents who then reflect that factor in their influence on the student. Manski and Wise's (1983) data from the National Longitudinal Study of the Class of 1972 show that women are more dependent on parents than men, but it also indicates that 93% of the women ranked self-dependence as an important factor. In a private market research study of women applicants, Litten (1978a) reports that parents are still an important factor in the college selection process. Sixty percent of the women stated that their parents influenced their choice of college.

Studies of the behavior of college-bound seniors also indicate that friends can be almost as important as parents. Murphy (1981) reports that high school seniors perceived their friends as a major source of influence along with their parents. According to Murphy, although parents saw themselves as the only major influence on the decision to attend college, both the students and parents said that the students made the actual decision of which college to attend. The college choice plans of friends can also affect the student's college enrollment plans. Tillery (1973) reports that students with friends who plan to continue their education are much more likely to plan on attending college as well. Litten (1978a) reports that 42% of the women in his private market study cited friends as an important source of information.

High school counselors are viewed by students as a good source of information, but recent research also indicates that students do not consider counselors to be an important influence in their choice of college. In the Project TALENT survey analyzed by Astin, Harway and McNamara (1976), 51% of men and 46% of women students state that they discussed college plans with their counselors two or more times during their senior year. These authors report that NLS data show only 9% of both men and women had indicated counselors as having an important influence on their college plans. Chapman, O'Brien, and DeMasi (1987) report that although 92% of the students surveyed indicate having used a high school counselor as a source of information about college, a high percentage judged the information they received from the counselors to be among the least useful of those sources they rated. High school teachers, parents, and college admission officers are viewed as providing more useful information than the high school counselor. Similar results are reported by Boyer (1987) who suggests that high school counselors are considered less influential than parents and friends because they are "overworked and not sufficiently informed" (p. 20). In his private market study, Litten (1978a) surveyed both female students and their high school counselors. Only 7% of the women saw their counselors as a major factor in the college selection process, whereas 65% of the counselors interviewed perceived themselves to be an important factor. Tillery (1973) reports that counselors placed second with 22% and teachers fourth with 10% when students were asked to name the most helpful



person in the process of gathering information about colleges. Lewis and Morrison (1975) find that men are more likely than women to consult with high school counselors. In related studies, college admission counselors are usually rated last in terms of their influence on college enrollment plans (Kealy & Rockel, 1987; Tillery, 1973).

Lewis and Morrison (1975) report different information-gathering patterns by sex and race combinations. Overall, black males consulted more sources of information, followed in order by white females, black females, and white males. Only white males reported parents as one of the top five generators of information, based on incidence of information provided. Litten (1982) finds that black students and students with less-educated parents are more likely to rely on high school counselors than parents as sources of information about colleges. Litten, Sullivan and Brodigan (1983) report that mothers are notably more important sources of information among black students, and that two "formal" channels (college admission counselors and unrequested college mailings--e.g., Student Search) play an important role for black students more than for other groups.

#### Institutional Characteristics and Choice

The fourth group of research studies related to the college selection process involves institutional characteristics that influence college choice. The institutional characteristics used in this study and discussed in this section are location, cost, and academic programs. Although many institutional characteristics could have been selected,

these three were chosen because they exert a significant influence on college choice decisions. Existing studies focus on the influence of these institutional characteristics during the search and choice stages of the college choice process.

Whereas the personal characteristics of students influence their decision to attend college or not, the characteristics of colleges are those variables which influence the type of institution students choose to attend. College characteristics such as location, cost, size, campus environment, and availability of desired programs are described as "fixed characteristics" by D. Chapman (1981) because of their inflexible nature.

The location of a college or university has a significant effect on the college enrollment decision. In Achieving Optimal Enrollment and Tuition Revenues, Ihlanfeldt (1980) reports that over 50% of new freshmen attend educational institutions within 50 miles of their home; 92% attend college within 500 miles of their home. In the SCOPE analysis of high school seniors, Tillery (1973) reports that 50% regard location as a major influence in their choice of a college. Proximity to home is, however, influenced by the number of colleges within the student's geographic area. D. Chapman (1981) suggests that college-bound students living in areas with many educational alternatives are less apt to travel as far to college as those in a rural area without many colleges. Students' geographical mobility is also influenced by their academic ability and family financial strength. Ihlanfeldt (1980) finds that high

ability students with no financial need consider a wider range of institutions than less able students who need financial aid.

Sex and race are influential factors in their interaction with location. Lewis and Morrison (1975) report that white females were most likely to be concerned about geographical location in selecting a college; white males showed most interest in the educational/curricular aspects of the college. Both female and male black students expressed concern more frequently about admissions criteria and the cost of attendance. The authors also state that none of the top 10 colleges being considered by all the black students and by white male students was out of state; however, the top five colleges being considered by white female students were out of state. In his research involving accepted matriculants at Carleton College, Litten (1978a) finds that ratings of Carleton College's "geographic location" were more powerful predictors of matriculation for women than for men; in contrast, the rating of "urban-rural location" was a stronger predictor for men. Brush (1976) reports that in two studies of female students who chose small colleges, the importance of location changed over a period of 20 years. In 1955, location ranked fifth out of 14 reasons for selecting the college; in 1974, it ranked second out of 29 reasons. In his private market study, Litten (1978a) finds that 50% of the women surveyed--as well as their parents--wanted a college located within 100 miles of home and that 100% preferred the college to be less than 500 miles from home. Litten notes that concern about location was greater among blue collar and minority families.

In their study of 144 Pittsburgh students, Lewis and Morrison (1975) find that women were equally likely as men to be concerned about the following attributes in the college selection process: physical/spatial (location), social, educational/curricular, and admissions (including costs). Men showed greatest concern with educational/curricular attributes, followed by the cost of attendance. In this sample, location was not more important than other factors for women, but location was relatively more important for women than for men.

Although the cost of attending college is considered a major factor in the college choice process, the research is divided as to whether cost is a greater influence on the student's decision to go to college or not or on the student's choice of a particular college to attend. Tillery and Kildegaard (1973) suggest that cost is probably more of an influence on whether or not a student attends college. Mundy (1976) finds that while students tend to select college options on the basis of family income, there is no correlation between family income and cost of college attended. He suggests that this lack of relationship may mean that the stratifying variable is not the cost of college but social background or family income of the enrollees.

Other research suggests that cost more influences the actual college selection decision. Davis and Van Dusen (1975) find that cost was one of the primary reasons why students did not attend their first-choice institution. Ihlanfeldt (1980) estimates that at least 70% of all students attending college are receiving financial assistance to

offset cost. He suggests that without this financial assistance, a high percentage of students would be severely restricted in their choice of college. In a study of freshmen at Indiana University, Chapman and Johnson (1979) find that students selected a college based on cost, where their friends decided to go to college, and the availability of desired programs (p. 501).

The availability of specific academic programs together with cost and location of college are probably the most influential institutional factors in the student's decision to attend a specific college or university (Hossler, 1984a; Jackson, 1982). In a study of 1,000 community college transfer students, Hartsell (1972) finds that the three most important factors which influenced the selection of an university are desirable curriculum, location, and cost. Students select colleges which they believe offer the courses they need to enter graduate school or to obtain employment. According to Chapman and Johnson (1979), the most important college characteristics in the college choice process are the courses that are available and the benefits that students will derive from these courses. They add that this is particularly true in professional and other somewhat specialized areas of training (e.g., architecture) and least true in content areas that are widely available (e.g., liberal arts). Women students are more likely than men to select colleges based on the availability of academic programs and are more likely to have a better idea of what they want to major in. The Cooperative Institutional Research Program (CIRP) national surveys of college

freshmen report that women are more likely than men to cite "special education programs offered" as one reason for choosing the college in which they enrolled (Astin et al., 1971, 1976, 1978). The results of a Response Analysis Corporation survey of Scholastic Aptitude Test (SAT) takers in 1977 indicate a higher percentage of women (36%) than men (25%) had a "definite idea" about what they wished to major in (Response Analysis Corporation, 1978).

#### College Communication and Choice

The final group of research studies related to the college choice process involves college communication strategies. The strategies used by colleges to communicate with students include college publications, personal letters from colleges, and college reference guides. The research primarily focuses on the influence of college communication strategies during the search and choice stages of the college choice process. These communication strategies are considered fluid characteristics in that they can be altered or varied.

College communication strategies, which can include various kinds of written materials and the personal communication activities of admission counselors, have an effect on the matriculation decision. A 1984 College Board report states that 36% of all students participating in its Student Search program applied to three or fewer of the colleges they learned of through this service. In addition, over 50% of the student participants believed that the Student Search program is very valuable. In 1984 the Carnegie Foundation for the Advancement of

Teaching (1986) surveyed 1,000 high school seniors as to the sources of information used most frequently in selecting a college. Results show that college publications ranked number one with 95% of the students surveyed indicating their use, followed by personal letters from college with 91% response. However, when students were asked to rank the sources in terms of importance, college publications placed second and personal letters from colleges placed fifth (pp. 29-30). Students rated college publications lowest in terms of both relevance and accuracy. In a study of more than 500 parents, Reynolds (1980-81) finds that parents rely on many sources for college information and rank college publications as a more reliable and helpful source of college information than the high school counselor.

Students consider information about academic programs and college costs to be the most important areas of information needed during the college choice process. Rowe (1980) reports that the most important information items indicated by students centered around academic (specific programs) and financial (costs, scholarships) needs. In a questionnaire to 2,500 applicants accepted at Boston College, Maguire and Lay (1981) asked students to compare Boston College or another college of their choice on 28 attributes. The resulting seven variables which they determined predicted matriculation at Boston College were, in order of importance: (1) financial aid, (2) parents' preference, (3) specific academic programs, (4) size, (5) location, (6) athletic facilities, and (7) social activities. Gilmour, Spiro and Dolich (1978) questioned 100

high school and college students about "primary factors and influences" at three points in the college selection process (decision to apply to college, decision about which college to apply to, decision about which college to enroll in). They report that academic programs were most important at the first and second stages, followed by costs at both stages, and then by location at the second stage; at the third stage, the rank order was costs, programs, and location. In a cross-sectional study of parents and students, Litten and Brodigan (1982) report that financial aspects were ranked the most important type of information about colleges by both the parent and student groups. Academic program ("field of study offered") was also very important for a large number in both groups, but particularly among students. Boyer (1987) surveyed students in December of their senior year about information still needed in the college selection process. He reports that over 80% wanted additional facts about costs and financial aid. Financial aid information ranked second, followed by available academic programs.

However, a study of the information needs of college sophomores shows a very different ranking of important information areas. Lenning and Cooper (1978) conducted a series of highly detailed surveys with high school students, college students, parents, and high school personnel. They report that among college sophomores, the four most desired items of information when selecting an institution are (1) transferability of courses (out of the college), (2) courses required for completion of the major, (3) the point at which a major must be declared to



graduate on time, and (4) how classes are taught (lectures, seminars, etc.). Information about course instructors and instruction was also considered important by a majority of the respondents. Lenning and Cooper find that parents and high school students had different information desires. Parents are more likely than high school seniors to be interested in information about admission standards, course transferability, and class instruction methods. High school students indicate greater interest in financial aid, social and recreational activities, student ratings of faculty, and recent graduates' satisfaction with their jobs and their college education.

Research indicates that standard approaches such as catalogs affect student college choice differently than personalized communications. A study of college freshmen conducted by Chapman and Johnson (1979) finds that students used the printed materials primarily to confirm decisions they had already made. In a study of the effectiveness of college communication strategies, Geller (1982) finds that students preferred personalized letters from faculty who taught in the students' areas of academic interest. Using a sample of midwest colleges, Freeman (1984) analyzed the effectiveness of "no-need" scholarships on the college selection process. His results show that the "courtship" procedures (personal letters from the president, special certificates, and an on-campus banquet) used in making these awards may have been more important than the dollar amount of the awards.

The Carnegie Foundation's (1986) survey included comparative college guides as a source of information about institutions of higher education. Findings show that almost 60% of the college-bound students in the study read commercial college guides. Both the students and their parents rate the relevance and accuracy of these guides as higher than college publications.

Research shows that a few differences exist among racial groups in their patterns of information-seeking behavior. Lewis and Morrison (1975) report that black students indicate more instances of asking for information about colleges than white students and more instances where sources provided suggestions of an additional college for consideration or information about an institution. They find that visits to colleges and visits by college admission counselors to high schools ranked higher as sources of information among black students than white students. Lewis and Morrison also suggest that black students appear to consult a greater variety of information sources than do white students. Hanson and Litten (1982) find only a few differences in the ways minority students seek information about colleges and universities. Asians tend to rely more on the college's "general reputation" than do either white or black students. Unrequested mailings by colleges such as those involved in the College Board's Student Search program are more important for black students than for other minorities.

Summary. This section has considered college choice as a complex process influenced by a variety of student and institutional

characteristics. The most influential factors in a student's decision to attend college are student achievement (Hossler, 1984a; Jackson, 1982; Manski & Wise, 1983), socioeconomic status (Corrazini, Dugan & Grabowski, 1972; Hanson & Litten, 1982; Hossler, 1984a; Litten, 1982), race and sex (Hossler, 1984a), as well as the institutional characteristics of location, cost, and specific academic programs (Chapman & Johnson, 1979; Ihlanfeldt, 1980; Jackson, 1982; Litten, 1982; Tillery, 1973). Parental education (Litten, 1982), especially the mother's level of education (Harnqvist, 1978), and parental encouragement (Conklin & Dailey, 1981) are also positively associated with college attendance. Many students first consider attending college when they are in elementary school (Murphy, 1981). Students from high SES backgrounds are more likely to attend four-year colleges and universities than students from average to below-average SES backgrounds (Davis & Van Dusen, 1975; Tillery, 1973). The search stage of the college choice process, which involves college investigation and evaluation, often is characterized by incomplete information, ineffective actions, and lack of accurate knowledge about college costs resulting in the elimination of colleges which are actually good choices (R. Chapman, 1984; Hossler, 1984a; Jackson, 1982). The principal sources of information available to students are college catalogs and brochures, high school counselors, parents, peers, and other friends, with parents, friends and peers being the most important information sources (Astin, Harway & McNamara, 1976; D. Chapman, 1981; Hanson & Litten, 1982; Kealy & Rockel, 1987; Litten,

1981; Tillery, 1973). Information about academic programs and college costs are considered to be the most important areas of information needed during the college selection process (Gilmour, Spiro & Dolich, 1978; Litten & Brodigan, 1982; Maguire & Lay, 1981; Rowe, 1980). Finally, the matriculation decision is affected by the net price--not the list price--of attending a particular college (Hossler, 1984a; Jackson, 1978; Manski & Wise, 1983). In a broader sense, college selection can be viewed as a decision-making process which involves students making choices between alternatives. In the next section the college choice process is discussed as a set of decision-making activities which occur in riskless situations.

### Decision Making

The second body of literature focusing on theories of decision making can be subdivided into four groups of research studies: (1) models of riskless choice, (2) adolescent decision-making models, (3) prescriptive models involving college choice decisions, and (4) college decision behavior.

Theory and research in the area of decision making is extensive. The literature includes investigations of personal and career decisions as well as decisions in the fields of engineering, medicine, economics, the judiciary, and politics. This section will focus on those decision-making models and research studies which most directly relate to the college choice process.

### Models of Riskless Choice

In general, models of choice describe how decision makers go about making choices in situations which contain both risky and riskless elements. Chief among the models of riskless choice are additive weighting (Adams & Fagot, 1959; Edwards & Tversky, 1967), satisficing (Simon, 1955), and elimination by aspects (Tversky, 1972). All three models deal with choice between alternatives, such as in most college selection decisions.

According to Adams and Fagot (1959), the additive weighting model provides a method of measuring the subjective value or utility of alternative choices. The model is concerned with individuals' choices among pairs of alternatives involving only two components, in situations where no risks are incurred. An example and application of the model are presented by the authors (p. 1):

Such alternatives might be, for example, political candidates who are described as varying in two characteristics, liberality and foreign policy. In such a case liberality would be one component and foreign policy would be a second component, and a political candidate would be characterized by a specified degree of liberality, and a specified foreign policy. In a typical experiment to which the model would apply, constructed hypothetical alternatives--such as political candidates in the above example--would be presented as pair-wise to the subjects, and they would be required to state a preference for one of the alternatives of each presented pair.

The additive weighting model assumes that a specified weight can be attached to each component, such that the value of each alternative can be mathematically calculated. The alternative with the highest score is considered the most preferred.

The theory of satisficing was advanced by Simon (1955) as an alternative to the classical notion of rationality. Simon suggests that decision makers do not and cannot maximize in most situations, that they settle for alternatives that are satisfactory, even though a better alternative might be found if the decision maker were to exhaust all alternatives. A satisficing strategy is one in which a search for alternatives is conducted in a decision situation until an alternative that is "good enough" is discovered. This alternative is selected because it is considered to at least resolve the most pressing problems that brought about the need for a decision. In the Simon model, few alternatives are typically reviewed before a decision is made. The decision maker may only assess the alternatives once and in a haphazard sequence. Unlike the factors in the additive weighting model, individual components are not weighed and then contrasted with one another; rather, an overall decision is reached by taking all things into consideration.

A final theory of choice is the elimination-by-aspects approach described by Tversky (1972). In this theory, each alternative is viewed as a set of aspects. At each stage in the process, an aspect is selected, and all the alternatives that do not include the selected aspect are eliminated. The process continues until all alternatives but one are eliminated. When the elimination-by-aspects approach is used, decision making becomes a sequential narrowing-down process. This approach involves a set of decision rules, unlike satisficing which uses

a single decision rule. Elimination by aspects also differs from the additive weighting model in that it is a simple strategy which does not require the evaluation and weighing of alternatives.

Berl, Lewis and Morrison (1976) compare the above three models of riskless choice together with a fourth composite model using a college selection context. The composite model for college selection, proposed by Lewis, Morrison, Penz and Wicinas (1974), distinguishes between factors of primary and secondary importance. It assumes that a decision maker will (1) place in a set of second priority any alternative that is "unacceptable" on a factor of primary importance; (2) rank the alternatives in each set according to the number of primary factors on which each alternative is "outstanding"; and (3) attempt to break any ties by considering the number of primary factors for which each alternative is at least "satisfactory" (i.e., not unsatisfactory and not lacking information) (p. 205). During the 1972-73 academic year, Berl, Lewis and Morrison interviewed 144 high school seniors from the beginning of October until sometime in spring when the students had made a final decision as to which college to attend, until they changed their minds about college, or until they dropped out of contact. In the interviews the authors sought information about actions by the student or others that provided information, criteria for judgment, alternatives, or additional sources of information. Their results indicate that the additive weighting model predicts final choices better than the other models, although the interview data did not indicate that the students used numerical values or averages.

Recent studies (Litten, 1986; Murphy, 1984) contend that college selection decisions are not risk free, but rather involve a large number of costs and risks. Using a marketing perspective, Litten (1986) asserts that higher education is a high-risk purchase for three reasons: (1) it is infrequently purchased; (2) it is of high personal importance, with long-term consequences; and (3) its quality is difficult for the lay person to judge (p. 19). Litten defines risk as the probability of achieving desired benefits from a product given the price that has to be paid. He suggests that the college search and selection process often involves major investments of parents' and students' time, effort, and dollars which are compounded as students consider institutions further away from home. In addition to the costs of seeking and evaluating information about colleges, college selection involves the costs of completing the application--often a multistep, multiple-document, major-effort project (p. 27).

Murphy (1984) identifies five types of risk found in the college choice process: financial risk, social risk, psychological risk, physical risk, and functional risk. Financial risk refers to the buyer's perception of whether the product is worth its financial cost. Social risk relates to the potential embarrassment to the consumer of making a poor product choice before family or peers. According to Murphy, higher education is high in social risk because the majority of students want their choice of college to be accepted by their families and friends. Psychological risk is experienced by the consumer internally. The



potential damage to the ego from an incorrect product choice may prevent the potential consumer from purchasing a product. Physical risk refers to the consumer's safety; urban campuses, for example, can be especially high in physical risk. Finally, functional risk involves the possibility that the product will not perform as expected. Murphy contends that higher education also involves the risk that the consumer will not perform well enough to realize the benefits that he or she seeks from the service (p. 83).

#### Adolescent Decision-Making Models

During the 1960s, educators looked to the literature on decision making to provide the necessary theoretical framework for secondary guidance services, including vocational counseling. Many of these career decision-making models are currently used to explain the decision-making activities of adolescents. All of the models discussed in this section (Gelatt, 1962; Janis & Mann, 1977; Katz, 1966; Tiedeman, 1961) were developed to explain the career selection process undertaken by high school students. The four models are also similar in their prescriptive approach to decision making and their roots in the language and concepts of classical decision theory. Prescriptive models explain how decisions should be made, whereas descriptive models attempt to specify how people actually make decisions. The four models adopt the basic procedures of classical decision theory--used in statistical decision theory--in that each predicts with mathematical certainty that if its procedures are followed, the decision will maximize the expected gains to be derived from the decision.

In searching for a framework to provide direction for guidance counseling, Gelatt (1962) suggests "sequential decision-making." Similar to a scientific approach, this frame of reference requires definition of objectives, collection and analysis of data, study of alternatives, and evaluation of results. The Gelatt model assumes a decision maker who requires information as "fuel" and who produces a recommended course of action which may be terminal (i.e., final) or investigatory (i.e., needing more information) depending upon how it relates to stated purposes. Information is organized into three systems: (1) the predictive system in which the decision maker determines the alternatives and evaluates the outcomes of each alternative; (2) the value system in which the value of each choice is established by the decision maker; and (3) the criterion system in which the decision maker considers the information in the other two systems and arrives at a terminal or investigatory decision (pp. 241-242). With this approach, the counselor's task is to help the student work through these various systems of decision making. This sequential decision-making approach increases the student's freedom of choice because decisions do not have to be made on the basis of only haphazardly perceived alternatives evaluated with subjective bias.

Similar to Gelatt's approach, the decision-making model developed by Katz (1966) also attempts to incorporate the student's values directly into the decision-making process. Katz suggests that the first step in career decision-making should be to weigh one's values according

to their degree of importance. The second step is to specify the ranges for each value that exist in reality. The decision maker then identifies the various career options that are available and determines the "strength-of-return coefficients" for each alternative. These coefficients are multiplied by the value weightings to produce the "sum of the value returns" for each alternative. Those options which are most likely to satisfy the most important values will produce the greatest sums and be the preferred choices. Katz suggests that the options can consist of colleges rather than occupations, but adds that "hard" information about colleges is "likely to be, in large measure, beyond the counselor's control" (p. 8).

Tiedeman (1961) offers an elaborate model to provide understanding about career decisions and general adolescent decision making. The model consists of seven "stations" or groups of activities to be experienced as one makes a decision. The first station, called Exploration, involves the trial-and-error efforts to differentiate among alternative goals. During the next station, Crystallization, patterns emerge in the form of alternatives and their consequences. The Choice station involves commitment to one goal and preparation for implementation. The Clarification station consists of attempts to perfect the image of self. The decision is made and the resulting new environment is experienced in the Induction station. With the sixth station, Transition, comes the confidence that one has been successful in the decision-making process. During the final Maintenance station, the decision maker meets others in

the social world who react toward the new choice. This confrontation can cause the decision maker to reflect, weigh, and even modify some intentions resulting from the decision. Greater objectivity is achieved during this process and eventually a synthesis is reached. Tiedman's seven stations provide an objective and systematic approach to decision making.

According to Janis and Mann (1977), seven "ideal" procedural processes are involved in decision making (p. 11). In what they term "synthesis processing," a person surveys a wide range of alternatives and carefully evaluates the objectives to be accomplished. The positive and negative consequences related to each of the alternative actions are contrasted. The decision maker intensively searches for new information with which to more adequately assess the alternatives and works to assimilate these data even if some do not support the preferred course of action. One makes a decision as the final outcome and then prepares to implement the chosen course. Janis and Mann believe that the more adequately a person engages in each of these steps, the more thorough and efficient the decision-making process.

### College Choice Decision-Making Models

The literature on decision making includes little research on the nature of the decision process and even less on college choice decision-making processes. The three models discussed in this section (Hammond, 1965; Harren, 1976; Hills, 1964) are adaptations of decision theory developed for use in counseling students about college selection. The

models developed by Hills and Hammond are both variations of the additive weighting approach to choice. In the Hills (1964) model, students assign values in the form of letter grades to each college under consideration. The values for each college are then multiplied by its selection probability estimated through actuarial procedures. Hills suggests that students using this approach would make "sound decisions" by choosing the institution with the greatest "expected values" calculation (p. 17). In the Hammond (1965) model, students assign weights based on relative importance to each factor that will influence the college decision (for example, cost, location, curriculum, etc.). Students then determine how each factor will be measured and the sources of information about each (for example, catalog, campus visit, word of mouth, etc.). A number of subdecisions are made by rating each of the possible colleges with respect to each of the factors. According to Hammond's model, the results of these subdecisions are combined to arrive at a major decision, the choice of the "best college."

In order to discover whether the use of any particular decision-making style results in greater satisfaction, Harren (1976) developed a paper-and-pencil instrument to assess: (1) which style had been used in the college choice decision, and (2) how satisfied students were with the college they had selected, their major, and their tentative choice of an occupation. The three decision-making styles used in the Harren study are: (1) the planning style--the student gathers information, evaluates the situation, and takes personal responsibility for the

decision; (2) the intuitive style--the student uses emotions, feelings, and fantasy, and bases the decision on what "feels right"; and (3) the dependent style--the student makes heavy use of the thoughts, opinions, and recommendations of others, and takes little responsibility for the final decision. Harren reports that the majority of students tend to use a planning style, but that the style of decision making used did not correlate with satisfaction with the decision or the certainty with which they had decided. In a similar study, Harren and Kass (1977) focus on how students use the planning, intuitive, and dependent decision-making styles. They find that the planning style used for decisions relating to college attendance, selection of a major, and choice of future occupation is positively correlated with the decision-making process within an occupation. In contrast, the intuitive and dependent styles are negatively correlated with the decision-making process within an occupation.

### College Decision Behavior

The nature of the college decision process is another relatively unexplored area in the literature on decision making. The research studies discussed here attempt to explain the behaviors associated with the college choice process in terms of student needs and motives. Whereas the first part of this chapter is concerned with the personal and institutional factors that influence the college choice decision, this section focuses on the psychological factors that influence that decision.

In their study of the post-high-school plans of graduating seniors conducted over an 11-year period, Berdie and Hood (1965) find that high school students make certain decisions not as a result of choice among alternatives, but rather as a result of limited alternatives. Due to their perception of very limited alternatives, students are forced into nonrational decision-making processes. Although the range of needs is almost limitless, Berdie and Hood suggest that post-high-school plans are influenced by a rather small number of needs: the need for action; the need for independence; the need for security; the need for status, recognition, and acceptance; and the all-encompassing need for "role fulfillment" (pp. 10-12). The authors contend that many decisions of high school students are influenced by accidental factors rather than by measurable variables. For example, economic conditions, climate and weather, health, transportation facilities, and new emphases in newspapers and other mass media can all seriously affect student decisions and behaviors.

Richards and Holland (1965) studied the "explanations" of college choice given by over 8,200 students who took the ACT in 1964. On the ACT Profile, students indicated which colleges were to receive their scores and rated 27 types of influence according to the degree each factor had affected their choice of college. Using factor analysis, Richards and Holland report four major areas of influence: intellectual emphasis, practicality, advice of others, and social emphasis. In this early analysis of college choice decision-making, the authors note that these four areas of influence are highly similar for both men and women.

On the basis of a series of studies, Douvan and Kaye (1963) suggest that plans and concepts concerning college show sex-specific orientations. They report that boys tend to perceive college in terms of job preparation, whereas for girls college plans are not specifically tied to vocational goals. Furthermore, the college plans of girls reveal more fantasy, particularly about boys and popularity, marriage and love. Boys more than girls tend to view college as a step toward the achievement of autonomy. Douvan and Kaye find that boys view college as a means for mobility and that this mobility aspiration is accompanied by a seriousness of purpose, a willingness to postpone gratification, a highly developed internal morality, and values of individualism and individual competence (p. 214). Similar motives for attending college are suggested by Cohen and Guthrie (1966) and the data compiled by the Cooperative Institutional Research Program (CIRP)(Astin, 1986). In their study, Cohen and Guthrie (1966) identify primary motives of students as being intellectual development, vocational preparation, satisfying parental and social demands, economic gains, leadership, and a desire to serve society. CIRP data indicate that the most important reasons for attending college cited by all new freshmen in 1986 were job preparation, intellectual development (to "learn more about things"), and economic gains (to "make more money"). Similar results are cited by Boyer (1987) in his study of college-bound high school graduates of 1985.



Summary. In this section, college choice has been viewed as a decision-making process undertaken by adolescents who use various methods to "weigh" alternatives in order to determine preferred choices. In riskless situations involving a choice between alternatives, decision makers use several methods: (1) additive weighting (Adams & Fagot, 1959; Edwards & Tversky, 1967), whereby the alternative with the highest mathematically-determined value is chosen; (2) satisficing (Simon, 1955), whereby an alternative that is "good enough" is chosen even though other alternatives may be available; (3) elimination-by-aspects (Tversky, 1972), whereby an alternative is chosen through a narrowing-down process, and (4) a composite model (Lewis, Morrison, Penz & Wicinas, 1974), whereby an alternative that is considered outstanding across various primary factors is chosen. Although these riskless models have been applied to the college choice process (Berl, Lewis & Morrison, 1976; Hammond, 1965; Hills, 1964), recent studies (Litten, 1986; Murphy, 1984) suggest that college selection decisions involve costs and risks. Decisions by adolescents can be explained by four prescriptive decision-making models developed to explain the career selection process undertaken by high school students (Gelatt, 1962; Janis & Mann, 1977; Katz, 1966; Tiedeman, 1961). All four models are derived from statistical decision theory which uses mathematical formulas to predict decisions. College decision behavior is also influenced by psychological factors such as the need for "role fulfillment" (Berdie & Hood, 1965), intellectual development (Astin, 1985; Cohen & Guthrie, 1966;

Richards & Holland, 1965), and autonomy and fantasy (Douvan & Kaye, 1963). The next section will focus more closely on those decision makers called transfer students and discuss the problems they encounter in the actual process of transferring from one institution to another.

### The Transfer Process

The final body of literature focusing on the transfer process can be subdivided into three groups of research studies: background characteristics of transfer students, problems associated with the transfer process, and expectations of the transfer student.

Over the past 20 years, the literature on transfer students has focused on the study of articulation which refers to services for transfer students (Armenio, 1978; Goodale & Sandeen, 1971; Kintzer, 1973a) and transfer which refers to the exchange of credits, courses, and curricula (Kintzer, 1973c; Knoell, 1982; Willingham, 1972). Many of the early articulation studies concentrated on transfer policies and agreements rather than on the actual problems students encounter when they transfer. The objectives of Knoell and Medsker's landmark national study (1965) of 10,000 transfer students centered on the academic performance of students after transfer and the lack of formal statewide articulation agreements. Only minimal attention was given to the actual student comments regarding problems in the transfer process and reasons for attending community colleges. Most of the more recent research on transfer students deals with the academic success of transfers at a particular college or comparisons of native and transfer students as to

academic performance at particular colleges. Thus, the scope of literature on transfer students in general and the transfer process in particular is neither wide nor comprehensive.

### Characteristics of Transfer Students

The first group of research studies involves the background characteristics of students who transfer from community colleges to four-year institutions. In general, transfer students differ from native students with regard to background variables and individual characteristics. Using data from the National Longitudinal Study of the High School Class of 1972, Peng and Bailey (1977) compared those who transferred from two-year colleges and those who enrolled in four-year institutions immediately after high school. In this study, SES was based upon a composite of the father's education, mother's education, parental income, father's occupation, and a household items index. The ability measure was a composite of four tests: Vocabulary, Reading, Letter Groups, and Mathematics. Results indicate that transfers came from lower SES families and had lower levels of academic ability, high school achievement, and educational aspiration than native students.

Peng (1978) used the same NLS data in a second study to compare the background characteristics of transfer students and nontransfers. Nontransfers were defined as persisters (students who remained in the same college from fall 1972 to fall 1974), withdrawals (students without degrees who were in college in fall 1972 but out by fall 1974), and graduates (two-year college students who completed a two-year degree but

did not continue their education in fall 1974). Findings show that students who transferred from two-year colleges to four-year institutions had a higher SES background, were composed of fewer Hispanics, had higher high school and college grades, and were more likely to major in academic fields than those who remained in the two-year college. Peng suggests that those who transferred were also better qualified academically and came from higher SES families which could better afford a four-year college education. Transfers from community colleges to four-year institutions also differed from withdrawals and graduates in their background characteristics. Compared to those two-year college students who did not transfer, transfer students had higher high school and college grades, academic aptitude, and educational aspirations. In addition, they were more likely to be from higher SES families and to have been exposed to an academic program in high school.

These findings support the early data reported in the Knoell and Medsker study (1965) as to the economic background of transfer students. Knoell and Medsker report that the parents of community college students were less well educated than those of native students, and the employment and income level of their fathers reflected this difference.

### Transfer Process Problems

A second group of research studies that relates to the transfer process involves the problems associated with that process. The problems discussed in this section include: (1) loss of college credit, (2) lack of articulation between two-year and four-year institutions, (3)

restrictive timing practices, and (4) lack of financial aid for transfer students.

The issue of transferable credit is probably the most persistent and researched topic in articulation literature since Knoell and Medsker's 1965 study. Despite its frequency in the literature, loss of credit has not been perceived as a serious problem by students who have actually transferred from two-year to four-year institutions. Knoell and Medsker (1964) found that over half of the 10,000 community college students in their sample lost college credit in transfer, and that 8% lost the equivalent of a full semester of college credit (p. 64). The reasons for credit loss were, in order of importance, credit exceeding the maximum allowed to community college transfers, poor grades, and courses considered below the collegiate level. While more than half lost some credit, fewer than 15% viewed the loss as serious. According to Knoell and Medsker (1965), the students were much more concerned about their "loss" of community college grade points than about small losses of course credit (p. 61). Willingham and Findikyan (1969) studied the same problem of loss of credit five years later and found that 10% of two-year college transfers lost at least one semester of credit. Two recent studies indicate that the problems considered most serious in transferring vary according to the students' familiarity with the transfer process. Hendel, Teal and Benjamin (1984) studied student attitudes about the transfer process among three student populations: (1) students who had never considered transferring, (2) students who had

seriously considered transferring but did not, and (3) students who had transferred. They find that although loss of credit is viewed as a serious problem by all three groups of students, fewer students who transferred noted it as a serious problem than either of the other two groups. Moreover, a majority of students who transferred (65%) reported no loss of credits, and only 15% reported losing more than 10 credits; the average credit loss reported by the total group of students was approximately five credits. In their study of the perceptions of articulation problems, Remly and Stripling (1983) report that actual transfer students perceive less difficulty in transferring than community college faculty and staff and four-year college faculty and staff. In addition, respondents who reported a high degree of knowledge about transferring perceived the process as less difficult than those with little or no knowledge.

A second and related problem for transfer students involves the articulation between two-year and four-year institutions. In general, articulation refers to the communication between community colleges and four-year institutions as to transfer policies and practices. More specifically, articulation refers to the written agreements between two-year and four-year institutions regarding transfer of credit and admission requirements. The articulation problems which surfaced along with the rapid growth of community colleges during the early 1960s have been extensively discussed, evaluated and, to a great degree, solved over the past two decades. Through their interviews with two-year college

students concerning their transfer problems and experiences, Knoell and Medsker (1965) find that community colleges were not adequately preparing their graduates for transfer. The students they interviewed report that the community colleges failed to make any systematic attempt to appraise the problems they encountered in the process of transferring (p. 85). The students also stress the need for better--and more--information about the four-year colleges and universities to which they were transferring. The degree to which articulation has ceased to be a problem is apparent from the results of a recent survey which examined the transfer agreements found at 835 two- and four-year institutions nationwide. Walton (1984) reports that 80.6% of the responding two-year colleges have written agreements with four-year institutions concerning transfer of credit, with 23.4% of the two-year colleges having course transfer lists, 37.7% having articulation agreements, and 19.4% having both transfer lists and articulation agreements. \*One persisting articulation problem involves the difficulties experienced by educators in building and coordinating articulation programs. In a study of articulation roles, Archer (1984) finds significant disagreement among college counselors and administrators as to the importance of articulation tasks.

The third problem of restrictive timing practices refers to admission, housing, and financial aid processes and deadlines established by four-year institutions for transfer applicants. Willingham and Findikyan (1969) identify one potential barrier to transfer students as "the

possibility of becoming lost in the administrative bustle of admitting new freshmen" (p. 10). They surveyed a group of 146 national institutions which very closely represented all four-year accredited institutions on both a regional and national basis. Their findings indicate that over half of the institutions (57%) waited to notify transfers about financial aid and housing availability, 27% followed a restrictive deposit policy (requiring a deposit of over \$50 within two weeks of notification of acceptance), and 14% notified transfers of their acceptance after the size of the freshman class was known. Remley and Strippling (1983) find that students who complete the transfer process consider the low priority given to transfer students for on-campus housing as one of the most serious problems they experienced; it ranked third in severity out of 41 potential transfer problems. The timing problem also includes the process and notification of transfer credit evaluation. In a limited sample of institutions, Thomas (1971) finds that only 58% notified the students of their transferable credit with the letter of acceptance. In 47% of the cases, the registrar notified students by a letter prior to registration.

A final problem associated with the transfer process involves the lack of financial aid available to transfer students. Transfers must deal with early financial aid deadlines and award practices that favor freshmen and native students, as well as with the fact that little financial aid is earmarked for transfer students. Willingham and Findikyan (1969) find that almost half of their sample of colleges and



universities reported that financial aid requests from transfer applicants exceeded institutional resources, and that less than 20% of the institutions had specific aid programs for transfer students. They suggest that the institutions' priorities were very evident from their finding that 33% of all new freshmen received aid, compared to only 14% of the transfers. Using data from the National Longitudinal Study of the Class of 1972, Peng and Bailey (1977) report that a higher percentage of native students received scholarships than did transfer students at each SES level, and, in fact, that a much greater proportion of native students than transfers received college-funded scholarships, grants, or state scholarships. Remley and Stripling (1983) find that actual transfer students perceived the few scholarships awarded to community college transfer students as one of the five most serious problems in the transfer process.

### Expectations of Transfer Students

A third group of research studies involves the transfer students' expectations about four-year colleges and universities. Despite having two years of actual college experience, the transfer student enters the four-year institution with unrealistic expectations of university life and costs. In a study of college student expectations, Buckley (1971) finds that both transfer students and new freshmen tend to exaggerate their expectations of the environment and anticipate a high intellectual and nonintellectual climate. In their replication of Buckley's study, Zultowski and Catron (1976) report that transfer students, like incoming

freshmen, view their college in very positive terms. Donato (1973) compared the expectations of the college environment held by transfer students with those held by native students. His findings indicate that community college transfer students hold unrealistic expectations of the intellectual and nonintellectual press. These expectations were highly incongruent with the perceived situation of native students. Knoell and Medsker (1965) find that most students rated the increased cost of their education in the four-year institution, in comparison with community college costs and in relation to their expectations, as the most serious post-transfer problem ( p. 70). Many of the students they interviewed report that they had made very unrealistic estimates of the cost of attending college away from home, particularly if they lived in off-campus housing. The inability to secure a part-time job and to manage their own money were cited by students as the root of the problem. Despite the many problems involved in adjusting to a new environment, transfer students are able to cope with the new institution after transfer. Conroe (1976) used the Mooney Problem Checklist with transfer and native students on the same college campus to study the types of problems encountered by both groups. His findings show that native students have more problems than transfer students. Conroe suggests that transfers are more able to cope with the new institution after making the decision to change schools.

Summary. This section has discussed the transfer process from the perspective of the students who are actually involved. Transfer

students differ from native students with regard to background variables and personal characteristics. Students who transfer from two-year colleges to four-year institutions come from lower SES families and have lower levels of academic ability, high school achievement, and educational aspiration as compared with students who enroll in four-year institutions immediately after high school (Peng & Bailey, 1977). Those who transfer from two-year colleges to four-year institutions had a higher SES background, were composed of fewer Hispanics, had higher high school and college grades, and were more likely to major in academic fields than students who stayed at the two-year college (Peng, 1978). The most significant problems in the transfer process stem from institutional policies and practices which favor incoming freshmen but which are used for all new students. Transfer students consider notification delays (Thomas, 1971), the low priority they are given for on-campus housing (Remley & Stripling, 1983), and the lack of financial aid (Peng & Bailey, 1977; Remley & Stripling, 1983) as more important problems than any loss of credit (Hendel, Teal & Benjamin, 1984; Remley & Stripling, 1983) or lack of articulation between the two-year colleges and four-year institutions (Walton, 1984). Finally, although transfer students have unrealistic expectations about four-year colleges and universities prior to transfer (Buckley, 1971; Donato, 1973), they have fewer problems than native students with their new environment after transfer (Conroe, 1976).

Chapter Summary. This chapter reviews literature related to four major topics: (1) the components and models of the college choice process (in the section on College Choice); (2) the personal, institutional, and psychological factors which influence college selection behavior (in the sections on College Choice and the Theories of Decision Making); (3) the characteristics of transfer students (in the section on the Transfer Process); and (4) the articulation problems encountered by students as they transfer from two-year colleges to four-year institutions (in the section on the Transfer Process). The salient points regarding these topics are included in summaries at the end of each section, and are used in the conclusions and recommendations discussed in Chapter V. The next chapter describes the methodology--the selection of the population, selection of the sample, development of the instrument, data collection, and data analysis--used in this study of the information-gathering activities employed by community college transfer students during the search stage of the college choice process.

## CHAPTER III

### METHODOLOGY

The major purpose of this study is to analyze the information-gathering activities used by community college students who are involved in the search stage of the college choice process. The study focuses on the quantity and quality of information about institutions of higher education that community college students receive from significant others prior to transferring. The timing as to when significant others are most influential in the college selection process is examined. The study considers the value of the information community college students request from four-year colleges and universities. In addition, the information-gathering activities actually conducted by community college transfer students during the search stage are determined. The study examines the characteristics of four-year institutions considered most important by community college students during the transfer process. Finally, the study considers the size and formation of the community college students' choice set of colleges.

#### Selection of the Population

This study explores the ways community college students who intend to transfer gather information about four-year colleges and universities in order to make a second enrollment decision. The population is

composed of full-time students enrolled in transfer curricula at Triton College (River Grove, Illinois) for the spring 1986 semester who had completed at least 15 semester hours of credit prior to that semester and who intended to transfer to four-year institutions either for the fall 1986 semester or a subsequent semester. The population consists of 1,035 students who were enrolled in Associate of Arts and Associate of Science degree programs at Triton College. The names of these students were obtained from the Vice President for Student Affairs at Triton College who endorsed the study. A description of the College appears in Appendix A.

#### Selection of the Sample

A random sample of 600 students who met the stated parameters was selected using a numerical table of random digits designed for that purpose (Neiswanger, 1966). Each member of the population ( $N = 1,035$ ) was assigned a number. In order to randomly select subjects from a population of this size, the digits in the table were combined to form numbers from 0000 to 9999. Numbers were chosen by starting at various arbitrary points in the table and moving in all directions, horizontally, vertically, and diagonally. This process was continued until a sample of 600 subjects was selected. A sample of this size was chosen in order to insure a significant number of usable responses.

### Development of the Instrument

The questions used in the instrument were selected by the researcher based on the research objectives stated in Chapter I. The format of the instrument was developed through an examination of literature on descriptive survey methods, an analysis of current instruments, and consultation with other professionals in the field of higher education. Demographic and student background items were added to determine the following factors: gender (Q-11), age (Q-12), race (Q-13), total family income (Q-14), predisposition to higher education (Q-17 and Q-18), parental education (Q-19 and Q-20), parental encouragement (Q-21), high school grade point average (Q-15), and college grade point average (Q-16). Research on college choice aided in the selection of the significant others (Q-1 through Q-4), college characteristics (Q-5), and sources of information about college (Q-6 through Q-9). A copy of the instrument can be found in Appendix B.

Eighty-six variables were identified in the survey instrument. Each variable, in some way, is related to one or more of the five research objectives for this study. The objectives and related variables are listed below along with the questionnaire items used to produce data for the analysis of the objectives.

Objective 1. To examine the role of significant others in the search phase: (a) to determine which significant others are influential sources of information for community college students during the search stage; and (b) to determine when during the search stage they are most influential.

The variables related to this objective include: Frequency of Information from each Significant Other; Quality of Information from each Significant Other; Degree of Influence of Information from each Significant Other; and Date of Influence of Information from each Significant Other.

The significant others listed in questionnaire items Q-1, Q-2, Q-3, and Q-4 are Mother, Father, Siblings, Friends (outside the community college), Friends/Classmates at the Community College, High School Teachers, High School Counselors, Teachers at the Community College, and Counselors at the Community College.

Objective 2. To determine which four-year college characteristics are most important to community college students by the end of the search stage, prior to applying to their choice set of institutions.

The variables related to this objective and used in questionnaire item Q-5 include: Public or State Institution, Private or Religiously Affiliated Institution, Small Student Body, Medium-sized Student Body, Large Student Body, Total Cost of Attendance, Availability of Financial Aid, Location of Campus, On-campus Residence Halls, and Availability of a Specific Program or Department.

Objective 3. To determine the role of four-year college communication strategies in the search phase: (a) to determine which four-year college communication strategies are influential for community college students during the search stage; and (b) to determine when during the search stage they are most influential.



The variables related to this objective include: Helpfulness of Information or Service, and Date of Influence of Information or Service.

The sources of information and services provided by colleges listed in questionnaire items Q-6, Q-7, Q-8, and Q-9 are the College Catalog, Brochures about Colleges and their Academic Programs, Financial Aid Information, Brochure about an Academic Major or Program, Information about Careers or Job Placement, Information about Course Transferability, On-campus Visit or Tour, On-campus Interview with an Admission Counselor, and Special On-campus Program.

Objective 4. To examine the role of information-gathering activities in the search phase: (a) to determine which information-gathering activities are actually conducted during the search stage by community college transfer students; and (b) to determine when during the search stage they are most influential.

The variables related to this objective include: Frequency of Information from each Significant Other; Date of Influence of Information from each Significant Other; Information or Services requested by the Student; Helpfulness of Information or Service; and Date of Influence of Information or Service.

The sources of information and services provided by colleges listed in questionnaire items Q-1, Q-4, Q-6, Q-7, and Q-9 are the College Catalog, Brochures about Colleges and their Academic Programs, Financial Aid Information, Brochure about an Academic Major or Program, Information about Careers or Job Placement, Information about Course Transferability, On-campus Visit or Tour, On-campus Interview with an Admission Counselor, and Special On-campus Program.

Objective 5. To determine the number of institutions in the community college students' choice set and when the choice set is formed.

The variables related to this objective are Number of Applications sent to Four-Year Colleges; Total Number of Applications Considered; Date of First Application; and Date of Application Decision.

The questionnaire items related to this objective include: Q-10, Q-17, Q-18, Q-24, Q-25A, Q-25B, Q-26, and Q-27.

Pilot Study. A pilot study was conducted during December 1985 and January 1986 with a small group of Triton College students. These students responded to a request for volunteers sent to a sample of the total population. The researcher met with each student individually asking each to identify any unclear wording or inaccurate categories in the cover letter or the questionnaire. The pilot study was instrumental in the development of a more effective cover letter and in the use of clear, unambiguous directions in the questionnaire. The pilot study also verified that the terminology and format used in the instrument were capable of producing the desired results.

#### Data Collection

Data were collected during the 1986 spring semester. A copy of the instrument, a return envelope, and a cover letter describing the purpose of the study were mailed to each subject in the sample. Copies of the cover letter and follow-up letter are included in Appendices C and D.

Initial contact was made on February 10, 1986. Subjects were asked to complete the questionnaires and return them by February 20, 1986. In order to facilitate the data collection, return envelopes preaddressed to the Admissions Counseling Office at Loyola University of Chicago were used for returning completed questionnaires. A follow-up letter and replacement questionnaire were sent to the 472 subjects who did not return the original questionnaire by March 4, 1986. The first mailing yielded 155 responses and the second mailing yielded 105 responses. A total of 176 of the questionnaires were usable.

To identify unreturned questionnaires and thereby facilitate the follow-up, the instruments were precoded with an identification number assigned by the researcher. Subjects were assured of confidentiality and participation was totally voluntary.

### Data Analysis

Questionnaire responses were transferred to coding sheets and subsequently entered into the IBM 3081D mainframe computer at Loyola University of Chicago. The data were processed using the Statistical Package for the Social Sciences, version SPSS-X. Each variable was described in terms of a frequency distribution, a cumulative frequency distribution, and measures of central tendency. Missing values were coded as zeroes.

The data were analyzed in several ways using descriptive statistics. Crosstabulations were calculated to determine the relationships between two or more variables. The strength of the association between

the variables was calculated using Spearman correlations. Spearman correlations are comparisons of two rank orders of variables. The correlations can assume values from -1.00 to +1.00, with zero indicating no relationship between variables. The results of these correlational studies have been used to examine the research objectives listed above.

Chapter Summary. This chapter has described the methodology--the selection of the population, selection of the sample, development of the instrument, data collection, and data analysis--used in this study of the information-gathering activities undertaken by community college transfer students during the search stage of the college choice process. The next chapter presents the results of the data collection and analysis.

## CHAPTER IV

### RESULTS

The preceding three chapters outline the purpose of this study and the methodology used in analyzing the research objectives. Chapter IV presents the results of the data collection and analysis.

#### Analysis of Data

A total of 600 students at Triton College were invited to participate in this study. Of the 600 students contacted, responses were received from 260, representing an initial 43% rate of return. The first mailing to the total sample of 600 yielded 155 responses, and the second mailing to the 472 non-respondents yielded 105 additional responses.

Of the 260 responses received, 176 were usable. These responses thus represent a final usable 29% rate of return. An analysis of the responses reveals two subgroups: one group which met all stated criteria (students enrolled full-time in transfer curricula and who intend to transfer for the Fall 1986 Semester), and a second group which met the above criteria except that the students plan to transfer to four-year institutions at some undisclosed time in the future. Of 176 respondents submitting usable questionnaires, 72, or 41%, intend to transfer in fall 1986 and 104, or 59%, intend to transfer later, most likely during the

1986-87 academic year. A summary of the demographic characteristics of the respondents in each subgroup, from questionnaire items Q-11 to Q-16 and Q-19 to Q-21, is provided in Table 1. The data have also been analyzed according to gender for both groups. Of 176 respondents, 103, or 59%, are female and 72, or 41%, are male. Females comprise 56% of the group transferring for fall 1986 and 61% of the group transferring in the future. Males comprise 44% of the group transferring for fall 1986 and 39% of the group transferring in the future.

The majority of respondents are white females within the 17-to-20 year old age group. Most respondents finished high school with a C+ or B average and are currently maintaining a college GPA within the 2.5 (C+) to 3.5 (B+) range. A majority of their parents earned a high school diploma and have an annual income of \$10,000 to \$50,000. Most respondents feel that going to college was always expected of them, although a large percentage feel that parental encouragement to attend college began while in high school. Based on the studies of Knoell and Medsker (1965) and Peng (1977), this sample is representative of community college transfers in general, especially in terms of ability and total family income.

Table 1

Demographic Characteristics of Respondents

Characteristic	Respondents	
	N	%
Gender		
Male	72	41
Female	103	59
Age Range		
17 - 20	120	69
21 - 24	32	18
25 - 30	13	7
Over 30	10	6
Ethnic Background		
White/Caucasian	153	88
Black/Afro-American	13	7
Hispanic	2	1
Asian-American	4	2
American Indian	0	0
Other	2	1
Total Annual Family Income		
\$ 9,999 or less	13	8
\$10,000 - \$29,999	55	34
\$30,000 - \$49,999	66	41
\$50,000 - \$69,999	21	13
Over \$70,000	6	4
Final High School GPA		
Below C	4	2
C	24	14
C+	44	26
B	60	35
B+	29	17
A	9	5
Current College GPA		
Below 2.0	1	0.6
2.0 - 2.49	17	10
2.5 - 2.99	46	27
3.0 - 3.49	70	41
3.5 - 4.00	38	22

Table 1 (continued)

Characteristic	Respondents	
	N	%
Mother's Level of Education		
Grade School	8	5
Some High School	27	16
High School Diploma	68	39
Business/Trade School	10	6
Some College	26	15
Associate's Degree	10	6
Bachelor's Degree	13	7
Some Graduate/Professional School	3	2
Graduate/Professional School	5	3
Don't Know	4	2
Father's Level of Education		
Grade School	12	7
Some High School	10	6
High School Diploma	55	32
Business/Trade School	13	8
Some College	24	14
Associate's Degree	10	6
Bachelor's Degree	15	9
Some Graduate/Professional School	6	4
Graduate/Professional School	17	10
Don't Know	8	5
Parental Encouragement Toward Bachelor's Degree		
College Always Assumed	83	48
Encouragement in High School	50	29
Recent Encouragement	6	3
College Not Assumed	14	8
Other	21	12



### Findings Relative to the Objectives

This study examines five research objectives, as stated in Chapter I. Presented in this chapter are the findings related to each of the five objectives.

Objective 1: To examine the role of significant others in the search phase: (a) to determine which significant others are influential sources of information for community college students during the search phase; and (b) to determine when during the search phase they are most influential.

Objective 1 involves the analysis of the significant others contacted for information about four-year colleges and universities by community college transfer students. The objective also considers the time at which these significant others are most influential. In order to determine which significant others are "influential" sources of information, three factors are considered: (1) frequency of contact (from questionnaire item Q-1), (2) quality of information received (from item Q-2), and (3) degree of influence on the college choice decision (from item Q-3).

Respondents are asked to determine the frequency of their discussions with significant others about transfer schools using the following scale: (1) never, (2) once or twice, (3) occasionally, (4) frequently. Results indicate that discussions occur most often with Friends (outside the community college)(2.960 mean), Mother (2.915), and Friends/Classmates at the Community College (2.863). These results agree with the findings of Astin, Harway, and McNamara (1976), Chapman and Johnson

(1979), and Murphy (1981) which show that parents and friends are the most important sources of information for college-bound seniors. A comparison of the mean scores indicates that all family members, friends, and classmates are contacted but on a rather infrequent basis by transfer students: from once or twice (2.0) to occasionally (3.0). Only about one third (32%) of the transfer students report that they frequently consult with their friends about four-year institutions. Table 2 provides the frequency of discussion about transfer schools between respondents and significant others.

The significant others consulted at least occasionally about four-year institutions are Friends (outside the community college) (71%), Mother (67%), and Friends/Classmates at the Community College (65%). Results show that females are much more likely than males to consult with their mothers, friends, classmates, and high school counselors about transfer schools. This differs from the finding by Lewis and Morrison (1975) that men are more likely than women to consult with their high school counselors. A comparison of the significant others with whom respondents frequently and occasionally discuss transfer schools is found in Table 3. Teachers and counselors, both at the high school and community college, are not frequently contacted by either male or female respondents. Only about one-fourth of all respondents discuss four-year colleges and universities even occasionally with their community college teachers. These results are consistent with the findings of Astin, Harway, and McNamara (1976), Chapman, O'Brien, and DeMasi

Table 2

Frequency of Discussion About Transfer Schools With Significant Others

Significant Other	Frequency of Discussion								Mean <sup>a</sup>
	(1) Never		(2) Once or Twice		(3) Occasionally		(4) Frequently		
	N	%	N	%	N	%	N	%	
Friends (outside the Community College)	12	7	39	22	68	39	56	32	2.960
Mother	18	10	39	22	59	34	60	34	2.915
Friends/Classmates at the Community College	16	9	45	26	61	35	53	30	2.863
Father	42	24	42	24	49	28	38	22	2.485
Siblings	54	31	41	23	45	26	31	18	2.310
Community College Teachers	74	42	59	34	36	21	6	3	1.851
Community College Counselors	78	44	61	35	25	14	9	5	1.798
High School Counselors	104	59	39	22	21	12	7	4	1.596
High School Teachers	104	59	43	24	20	11	4	2	1.556

<sup>a</sup>Scale: (1) never, (2) once or twice, (3) occasionally, (4) frequently

(1987), Litten (1978a), and Murphy (1981) which indicate that high school students do not consider their counselors to be an important influence in the choice of a college, and that the information they receive is not useful.

Table 4 presents a comparison of the frequency of discussion regarding transfer school selection with family income. Results show that students from higher-income families are more likely to discuss transfer schools with their mothers, friends, classmates, and fathers. Students from lower-income families are more likely to speak primarily with their friends and secondarily with their community college classmates and their mothers. Results also indicate that students from lower-income families are more likely not to consult with their fathers, high school counselors and teachers about colleges to which to transfer. Parents in low-income families are less likely to have attended college, and therefore, are less able to provide their children with first-hand information about colleges or ways to select a college. These students from low-income families seek out those people who can furnish them with accurate and current information about college choice. Siblings are contacted occasionally for information by students from all SES backgrounds. Siblings from higher-income families are more likely to have attended college and are, therefore, good sources of first-hand information about colleges. Siblings in lower-income families are more likely to be available to potential transfer students than are the fathers in the families. The Spearman rank correlations listed in Table

Table 3

Significant Others With Whom Respondents Frequently and Occasionally  
Discuss Transfer Schools

Significant Other	Respondents					
	Male		Female		Total	
	N	%	N	%	N	%
Friends (outside the Community College)	48	68	75	73	123	71
Mother	43	60	75	73	118	67
Friends/Classmates at the Community College	41	57	72	71	113	65
Father	35	49	51	52	86	51
Siblings	32	45	43	43	75	44
Community College Teachers	18	25	24	24	42	24
Community College Counselors	16	22	18	18	34	20
High School Counselors	9	13	20	20	29	17
High School Teachers	10	14	14	14	24	14

4 indicate little association between frequency of discussion about transfer schools and family income. However, a significant positive relationship (.2627) is found between the frequency of discussion with father and family income, indicating that the higher the family income the higher the frequency of discussion with father.

A comparison of the frequency of discussion of transfer schools according to the father's level of education is provided in Table 5. Results show that students whose fathers have not attended college are more likely to discuss transfer schools with their friends, classmates, and mothers. Students whose fathers have attended college are more likely to discuss transferring with their friends, mothers, fathers, and classmates. Results also indicate that students whose fathers have attended college are more likely not to consult with their high school teachers or counselors about transfer schools. Regardless of their fathers' level of education, students are more likely not to consult with their high school teachers and counselors as well as their community college teachers and counselors. The Spearman correlation indicates a positive relationship (.2443) between the father's level of education and frequency of discussion about transfer schools, indicating that the higher the father's level of education the higher the frequency of discussion with the father about transfer.

Table 6 presents a comparison of the frequency of discussion of transfer schools according to the mother's level of education. Similar to the findings above, students whose mothers have attended college are

Table 4

Frequency of Discussion about Transfer Schools According to Family Income

Significant Other	Frequency of Discussion												Spearman Correlation <sup>a</sup>
	Never				Once or Twice				Occasionally/Frequently				
	Under \$30,000	Over \$30,000	Under \$30,000	Over \$30,000	Under \$30,000	Over \$30,000	Under \$30,000	Over \$30,000	Under \$30,000	Over \$30,000	Under \$30,000	Over \$30,000	
	N	%	N	%	N	%	N	%	N	%	N	%	
Father	27	43	8	9	14	22	26	28	22	35	59	63	.2627*
High School Counselors	48	74	44	48	7	11	32	35	10	15	16	17	.2061*
High School Teachers	44	67	47	52	11	17	31	34	11	17	13	14	.1108
Friends (outside the Community College)	3	4	5	5	9	13	25	27	55	82	63	68	-.0663
Community College Counselors	28	42	41	45	21	31	35	38	18	27	16	17	-.0536
Siblings	22	33	24	27	13	19	26	29	32	48	39	44	-.0363
Mother	7	10	7	8	18	26	19	20	43	63	67	72	.0262
Community College Teachers	27	40	39	42	24	35	31	33	17	25	23	25	.0171
Friends/Classmates at the Community College	7	10	6	7	15	22	24	26	46	68	62	67	-.0152

<sup>a</sup>N = 142

\* = Variables are significantly related (level of significance < .05)

Table 5

Frequency of Discussion about Transfer Schools According to Father's Level of Education

Significant Other	Frequency of Discussion												Spearman Correlation <sup>u</sup>
	Never				Once or Twice				Occasionally/Frequently				
	No College N	College %	Some College N	College %	No College N	College %	Some College N	College %	No College N	College %	Some College N	College %	
Father	26	30	9	13	24	27	16	23	38	43	45	64	.2443*
Community College Teachers	39	44	27	38	29	33	26	36	21	24	19	26	.1613*
High School Teachers	48	54	45	65	22	15	20	29	19	21	4	6	-.1131
Siblings	30	34	20	28	19	22	21	30	38	44	30	42	.0563
Community College Counselors	39	44	29	41	32	36	27	38	17	19	15	21	.0652
Friends (outside the Community College)	6	7	5	7	20	22	17	24	63	71	50	69	.0636
High School Counselors	50	57	44	63	20	23	18	26	18	20	8	11	-.0340
Friends/Classmates at the Community College	6	7	7	10	22	24	21	30	62	69	43	61	-.0235
Mother	9	10	7	10	19	21	16	22	62	69	49	68	-.0074

<sup>a</sup>N = 142

\* = Variables are significantly related (level of significance &lt; .05)



more likely to consult with their friends, mothers, classmates, and fathers about transfer schools. Students whose mothers have never attended college are more likely to discuss transferring with their friends, classmates, and mothers. Although they may lack first-hand information about college, mothers are perceived as good advisors and helpers in the decision-making process. Since this study did not determine the size and composition of the respondents' families, these results may, in part, be the result of single-parent families. The results from Tables 5 and 6 do not support the finding of Litten (1982) who indicates that students with less-educated parents are more likely to rely on high school counselors than parents as sources of information about colleges. The Spearman correlations in Table 6 show little significant agreement between variables.

A comparison of the frequency of discussion of transfer schools and scholastic achievement is presented in Table 7 (according to the respondents' high school GPA) and in Table 8 (according to the respondents' community college GPA). Results indicate that, regardless of the high school GPAs, students are more likely to consult with their friends, classmates, and mothers about transfer schools. Students with lower GPAs in high school are more likely not to consult with their high school counselors and teachers. A positive relationship (.2158) is found between the students' high school GPA and frequency of discussion with high school counselors. This association supports Tillery's (1973) findings that high school counselors favor those students who are

Table 6

Frequency of Discussion about Transfer Schools According to Mother's Level of Education

Significant Other	Frequency of Discussion												Spearman Correlation <sup>a</sup>
	Never				Once or Twice				Occasionally/Frequently				
	No College N	Some College %	No College N	Some College %	No College N	Some College %	No College N	Some College %	No College N	Some College %	No College N	Some College %	
Community College Teachers	48	43	21	37	36	32	22	39	28	25	14	25	.1568*
Father	29	26	12	21	29	26	12	21	52	47	32	57	.1254
High School Teachers	63	57	36	64	30	27	13	23	17	15	7	13	-.0639
Friends/Classmates at the Community College	6	5	8	14	30	27	14	25	76	68	35	61	-.0447
Friends (outside the Community College)	9	8	3	5	23	21	15	26	80	71	39	68	.0426
Mother	9	10	7	10	19	21	16	22	62	67	49	68	.0412
Siblings	33	30	19	34	23	21	18	32	54	49	19	34	-.0345
Community College Counselors	48	43	26	46	22	39	22	39	25	23	8	14	-.0272
High School Counselors	64	58	35	63	25	23	14	25	21	19	7	13	-.0238

<sup>a</sup>N = 142

\* = Variables are significantly related (level of significance < .05)

clearly college bound and who wish to attend more competitive institutions. Results from Table 8 show that students with higher community college GPAs are more likely to discuss transfer schools with their friends, classmates, and mothers. Students with lower GPAs at the community college are more likely to consult with their mothers. Results also indicate that regardless of college GPAs, students are more likely not to consult with their high school teachers and counselors as well as their community college teachers and counselors. The Spearman correlation indicates little significant association between the variables in Table 8.

Respondents are asked to evaluate the quality of information they received about transfer schools from significant others using this scale: (1) no information received, (2) of little value, (3) somewhat valuable, (4) very valuable. Results show that the most valuable information is provided by Friends (outside the community college) (2.520 mean) and Friends/Classmates at the Community College (2.500). The mean scores indicate that the information provided by each of the significant others has limited value for the transfer student. Only 19% of the respondents rate the information about transfer schools provided by their friends--the people they most often contact--as very valuable. Table 9 presents the quality of transfer school information provided by significant others.

The rank order of significant others with whom respondents receive somewhat and very valuable information about four-year institutions

Table 7

Frequency of Discussion about Transfer Schools According to High School GPA

Significant Other	Frequency of Discussion												Spearman Correlation <sup>a</sup>
	Never				Once or Twice				Occasionally/Frequently				
	C- to C+		B to A		C- to C+		B to A		C- to C+		B to A		
	N	%	N	%	N	%	N	%	N	%	N	%	
High School Counselors	49	70	51	53	11	16	27	28	10	14	18	19	.2158*
Mother	10	14	7	7	17	24	21	21	45	63	70	71	.1220
High School Teachers	47	66	53	56	15	21	27	28	9	13	15	16	.1190
Community College Teachers	34	47	36	37	22	31	36	37	16	22	25	26	.0943
Friends (outside the Community College)	6	8	6	6	16	23	22	22	49	69	70	71	-.0802
Friends/Classmates at the Community College	8	11	7	7	19	27	24	24	44	62	67	68	.0216
Community College Counselors	34	47	40	42	25	35	34	36	13	18	21	22	.0158
Father	16	22	24	26	22	31	19	20	34	47	51	54	.0143
Siblings	26	37	26	27	13	18	26	27	32	45	43	45	-.0010

<sup>a</sup>N = 142

\* = Variables are significantly related (level of significance &lt; .05)

Table 8

Frequency of Discussion about Transfer Schools According to Community College GPA

Significant Other	Frequency of Discussion												Spearman Correlation <sup>a</sup>
	Never				Once or Twice				Occasionally/Frequently				
	2.0 to 2.9	3.0 to 4.0	2.0 to 2.9	3.0 to 4.0	2.0 to 2.9	3.0 to 4.0	2.0 to 2.9	3.0 to 4.0	2.0 to 2.9	3.0 to 4.0	2.0 to 2.9	3.0 to 4.0	
	N	%	N	%	N	%	N	%	N	%	N	%	
High School Teachers	34	53	68	65	18	28	25	24	12	19	11	11	-.1629*
High School Counselors	33	52	69	66	16	25	23	22	15	23	12	12	-.1374
Community College Teachers	33	52	38	36	20	31	39	36	11	17	30	28	.1263
Friends/Classmates at the Community College	6	9	9	8	15	23	30	28	43	67	68	64	-.0992
Friends (outside the Community College)	3	5	8	7	16	25	23	21	45	70	76	71	-.0858
Community College Counselors	30	47	45	43	23	36	37	35	11	17	23	22	.0334
Mother	3	5	14	13	11	17	28	26	49	77	67	62	-.0237
Siblings	21	33	32	30	17	27	24	23	25	40	49	47	.0189
Father	13	20	28	27	15	23	27	26	36	56	49	47	-.0170

<sup>a</sup>N = 142

\* = Variables are significantly related (level of significance < .05)

Table 9

Quality of Transfer School Information Provided by Significant Others

Significant Other	Quality of Information								Mean <sup>a</sup>
	(1) No Info. Received		(2) Of Little Value		(3) Somewhat Valuable		(4) Very Valuable		
	N	%	N	%	N	%	N	%	
Friends (outside the Community College)	40	23	37	21	62	35	34	19	2.520
Friends/Classmates at the Community College	33	19	40	23	82	47	19	11	2.500
Mother	62	35	47	27	43	24	21	12	2.133
Community College Teachers	74	42	34	19	45	26	21	12	2.075
Father	65	37	51	29	33	19	22	13	2.070
Community College Counselors	81	46	28	16	39	22	24	14	2.035
Siblings	87	49	30	17	35	20	19	11	1.918
High School Counselors	84	48	34	19	41	23	13	7	1.901
High School Teachers	97	55	30	17	31	18	14	8	1.779

<sup>a</sup>Scale: (1) no information received, (2) of little value, (3) somewhat valuable,  
(4) very valuable

includes Friends/Classmates at the Community College (58%), Friends (outside the community college)(56%), Community College Teachers (38%), and Mother (37%). A comparison of the significant others who provide transfer school information considered at least somewhat valuable by respondents is found in Table 10. Results indicate that females are much more likely than males to consider the information about transfer schools provided by their mothers and fathers to be very valuable. These results differ from the findings of Gilmour, Spiro, and Dolich (1978), Litten, Sullivan, and Brodigan (1983), and Tillery (1973) which indicate that parents are the most important and influential sources of information in the college choice process.

Table 11 presents a comparison of significant others who are reported as providing no information to respondents about schools to which they could transfer. More than half of the respondents never receive information from their high school teachers. Almost half of the women (49%) and 40% of the men report that community college counselors provide no information about transfer institutions. Community college students may not seek out their counselors but wait to be contacted as in high school. Results show that women more often than men receive no information from their community college teachers and counselors, whereas men more often than women receive no information from their high school counselors. The results lend support to the study conducted by Chapman, O'Brien, and DeMasi (1987) which finds that nearly 20% of the high school graduates surveyed report that they had never discussed

Table 10

Significant Other Who Provide Transfer School Information Considered  
Somewhat and Very Valuable

Significant Other	Male		Respondents Female		Total	
	N	%	N	%	N	%
Friends/Classmates at the Community College	39	54	62	61	101	58
Friends (outside the Community College)	38	54	58	57	96	56
Community College Teachers	26	36	40	40	66	38
Mother	20	28	44	44	64	37
Community College Counselors	27	38	36	39	63	37
Father	18	25	37	37	55	32
Siblings	27	30	27	27	54	32
High School Counselors	20	28	34	34	54	32
High School Teachers	19	28	26	26	45	26



their college plans with the school counselor. Forty percent of the females receive no information from their fathers, and 39% of the males receive no information from their mothers. Since data were not collected as to the respondents' degree of contact with either parent, these results may, in part, be the result of single-parent families. According to 1980 census data, 24.5% of American families which include members over 18 years of age are run by single parents.

Respondents also rate the degree of influence each significant other has on their selection of transfer schools using this scale: (1) no influence, (2) little influence, (3) fair amount of influence, (4) great amount of influence. Results show that Mother (2.711 mean) and Father (2.526) are reported to have the greatest influence on the choice of transfer schools. Although these mean scores are the highest, they indicate that parents have at best only a fair amount of influence on the college choice decisions made by most of the respondents. A comparison of the mean scores shows that all the significant others with the exception of high school teachers and counselors have some small degree of influence on transfer school selection. High school teachers and counselors appear to have very little if any influence on the transfer student's selection of a four-year institution. High school personnel may, to a small degree, influence a student's first enrollment decision (Astin, Harway, & McNamara, 1976; Boyer, 1987; Litten, 1978a), but not the second decision made while at the community college. Table 12 presents the degree of influence significant others have on the respondents' selection of transfer schools.

Table 11

Significant Others Who Provide No Information About Transfer Schools

Significant Other	Respondents			
	Male		Female	
	N	%	N	%
High School Teachers	42	58	54	55
Siblings	33	46	53	54
Community College Counselors	31	40	49	49
Community College Teachers	26	36	47	47
High School Counselors	39	54	44	44
Father	24	34	40	40
Mother	24	39	37	37
Friends (outside the Community College)	16	23	23	23
Friends/Classmates at the Community College	14	19	18	18

Table 12

Influence by Significant Others on Transfer School Selection by Respondents

Significant Other	Degree of Influence								Mean <sup>a</sup>
	(1) No Influence		(2) Little Influence		(3) Fair Amount of Influence		(4) Great Amount of Influence		
	N	%	N	%	N	%	N	%	
Mother	37	21	32	18	48	27	56	32	2.711
Father	46	26	31	18	52	30	42	24	2.526
Friends (outside the Community College)	42	24	64	37	49	28	20	11	2.269
Friends/Classmates at the Community College	43	24	76	43	47	27	9	5	2.126
Community College Teachers	70	40	35	20	55	31	14	8	2.075
Siblings	77	44	36	21	43	24	15	9	1.977
Community College Counselors	86	49	28	16	38	22	19	11	1.942
High School Counselors	101	57	35	20	28	16	8	5	1.669
High School Teachers	108	61	37	21	19	11	9	5	1.590

<sup>a</sup>Scale: (1) no influence, (2) little influence, (3) fair amount of influence, (4) great amount of influence

Respondents indicate that Mother (61%) and Father (55%) are the people who influence transfer school selection to almost a "fair amount." Results show that women are much more likely than men to be influenced significantly by their mothers, fathers, and friends (outside the community college). This is consistent with the findings of Litten (1978a) and Manski and Wise (1983) which indicate that women are greatly influenced by parents and friends and, in fact, are more dependent on parents than men. Results also show that one third of the respondents indicate that they are significantly influenced by their brothers and/or sisters. These siblings may be able to supply the respondents with first-hand information about colleges and the college selection process. A comparison of these significant others who influence the selection of transfer schools to a fair or great degree is found in Table 13.

A comparison of the influence of significant others on the transfer school selection process with family income is found in Table 14. Results indicate that students from lower-income families are more likely to be influenced by their mothers and less likely to be influenced by their friends, classmates, and community college teachers. Students from higher-income families are more likely to be influenced by their mothers and fathers and less likely to be influenced by their classmates and friends. These results differ from earlier findings (Hossler, 1985; Litten, 1982) that indicate that students from low-income families are more likely to rely on their high school counselor for information about colleges, and support the more recent findings of

Table 13

Significant Others Who Influence Transfer School Selection to a  
Fair and Great Degree

Significant Other	Male		Respondents Female		Total	
	N	%	N	%	N	%
Mother	33	47	71	71	104	61
Father	34	47	60	60	94	55
Friends (outside the Community College)	25	35	44	43	69	40
Community College Teachers	29	41	39	38	68	39
Siblings	24	33	34	34	58	34
Community College Counselors	25	35	32	32	57	34
Friends/Classmates at the Community College	22	31	34	33	56	32
High School Counselors	16	22	20	20	36	21
High School Teachers	10	14	18	18	28	16

Chapman, O'Brien, and DeMasi (1987) that high school counselors do not play a major role in assisting students from low-income families in college selection. Calculation of the Spearman correlation indicates a positive relationship (.2923) between the father's degree of influence and family income, indicating that the higher the family income the higher the father's degree of influence.

Tables 15 and 16 present comparisons of the degree of influence of significant others on transfer school selection with the father's and mother's level of education respectively. Results from these two tables indicate that students whose fathers have attended college are more likely to be influenced by their parents, and less likely to be influenced by their classmates, friends, and community college teachers. Students whose mothers have attended college are more likely to be influenced by their parents and less likely to be influenced by their classmates and friends. These results support the findings of Murphy (1981), Tillery (1973), and Trent and Medsker (1969) which indicate that parents are the most influential sources of information for high school students. They also confirm that parental education is interrelated with both educational aspirations and the college enrollment decision (Manski & Wise, 1983; Tillery, 1973). Other results show that students whose parents have not attended college are less likely to be influenced by their high school teachers and counselors. These results do not support the findings of Hossler (1985) and Litten (1982) that students whose parents have less education are more likely to rely on their high

Table 14

Influence of Significant Others on Transfer School Selection According to Family Income

Significant Other	Degree of Influence												Spearman Correlation <sup>a</sup>
	None				Little/Fair Amount				Great Amount				
	Under \$30,000 N	Over \$30,000 %	Under \$30,000 N	Over \$30,000 %	Under \$30,000 N	Over \$30,000 %	Under \$30,000 N	Over \$30,000 %	Under \$30,000 N	Over \$30,000 %	Under \$30,000 N	Over \$30,000 %	
Father	27	43	12	13	28	44	49	53	8	13	32	34	.2923*
Community College Counselors	28	42	48	53	29	44	33	36	9	14	10	11	-.1578*
Community College Teachers	23	34	40	43	36	54	47	51	8	12	6	6	-.1380
High School Counselors	44	67	46	50	10	29	42	46	3	5	4	4	.1205
Mother	16	24	17	18	30	45	41	45	20	30	34	37	.1122
High School Teachers	46	69	51	55	17	25	37	40	4	6	4	4	.0793
Friends (outside the Community College)	17	25	17	18	42	63	66	71	8	12	10	11	-.0346
Friends/Classmates at the Community College	18	27	18	19	46	69	70	75	3	4	5	5	-.0259
Siblings	30	45	39	43	29	44	43	48	7	11	8	9	-.0120

<sup>a</sup>N = 142

\* = Variables are significantly related (level of significance &lt; .05)

school counselor for advice about college. Spearman correlations for Tables 15 and 16 show little significant association between any of the variables, and that most of the correlations have a negative association, indicating that low scores on one variable go with high scores on the other variable and visa versa.

A comparison of the influence of significant others on transfer school selection and the respondents' performance in school is found in Table 17 (according to high school GPA) and in Table 18 (according to community college GPA). Results indicate that students, regardless of high school GPA, are more likely to be influenced by their parents, especially their mothers, and less likely to be influenced by their classmates and friends. Students, regardless of community college GPA, are also more likely to be influenced by their fathers and especially by their mothers. Students with higher GPAs at the community college, who may have definite plans for college, are less likely to be influenced by their friends and classmates. Students with lower GPAs at the community college are more likely to be influenced by their friends outside the community college and by their siblings. Spearman correlations in Table 17 show that there is some association, although not strong, between the variables. All the correlations in Table 18 are negative indicating that the higher the community college GPA the lower the degree of influence by each significant other, and visa versa.

Respondents also indicate when significant others are most influential in the college selection process using these choices: (1) not



Table 15

Influence of Significant Others on Transfer School Selection According to Father's Level of Education

Significant Other	Degree of Influence												Spearman Correlation <sup>a</sup>
	None				Little/Fair Amount				Great Amount				
	No College N	%	Some College N	%	No College N	%	Some College N	%	No College N	%	Some College N	%	
High School Counselors	45	52	44	62	38	44	24	34	4	5	3	4	-.1913*
High School Teachers	48	55	48	68	35	40	21	30	5	3	2	3	-.1543*
Father	26	30	11	16	47	53	34	49	16	18	25	36	.1393
Friends/Classmates at the Community College	16	18	22	31	69	77	46	65	2	2	3	4	-.1290
Friends (outside the Community College)	18	20	20	28	61	68	45	63	11	12	6	8	-.0864
Community College Teachers	30	34	32	44	48	55	37	51	10	11	3	4	-.0529
Siblings	38	44	32	45	39	45	35	49	10	11	4	6	.0527
Mother	16	18	14	20	47	53	29	41	26	29	27	39	.0179
Community College Counselors	41	48	36	51	32	37	30	42	13	15	5	7	-.0030

<sup>a</sup> N = 142

\* = Variables are significantly related (level of significance &lt; .05)

Table 16

Influence of Significant Others on Transfer School Selection According to Mother's Level of Education

Significant Other	Degree of Influence												Spearman Correlation <sup>a</sup>
	None				Little/Fair Amount				Great Amount				
	No College N	%	Some College N	%	No College N	%	Some College N	%	No College N	%	Some College N	%	
Friends/Classmates at the Community College	19	17	20	36	88	78	34	61	6	5	2	4	-.1797*
Community College Teachers	39	35	26	46	60	54	29	52	13	12	1	2	-.1438*
High School Counselors	62	56	33	59	44	40	19	34	4	4	4	7	-.1199
High School Teachers	67	60	35	63	38	34	18	32	6	5	3	5	-.0763
Mother	24	22	6	19	51	47	28	51	37	34	18	33	.0534
Father	31	28	12	21	55	50	27	48	24	22	17	30	.0498
Friends (outside the Community College)	22	19	17	30	79	70	32	57	12	11	7	13	-.0186
Community College Counselors	54	49	16	29	40	36	23	42	16	15	3	5	-.0300
Siblings	48	44	26	46	48	44	29	52	14	13	1	1	-.0005

<sup>a</sup> N = 142

\* = Variables are significantly related (level of significance < .05)

Table 17

Influence of Significant Others on Transfer School Selection According to High School GPA

Significant Other	Degree of Influence												Spearman Correlation <sup>a</sup>
	None				Little/Fair Amount				Great Amount				
	C- to C+		B to A		C- to C+		B to A		C- to C+		B to A		
	N	%	N	%	N	%	N	%	N	%	N	%	
High School Teachers	52	72	51	54	18	25	36	38	2	3	7	7	.2054*
High School Counselors	48	67	49	52	21	29	40	43	3	4	5	5	.1973*
Mother	20	28	14	15	31	43	47	49	21	29	34	36	.1899*
Father	23	32	20	21	34	47	47	50	15	21	27	29	.1565*
Siblings	38	54	36	38	25	35	40	42	8	11	7	7	.1537*
Community College Counselors	39	55	44	47	28	39	39	38	4	6	14	15	.1161
Friends/Classmates at the Community College	19	26	22	23	48	67	72	74	5	7	3	3	.1087
Friends (outside the Community College	19	26	20	21	44	61	67	69	9	13	10	10	.0919
Community College Teachers	32	45	36	37	35	49	52	54	4	6	9	9	.0463

<sup>a</sup>N = 142

\* = Variables are significantly related (level of significance &lt; .05)

Table 18

Influence of Significant Others on Transfer School Selection According to Community College GPA

Significant Other	Degree of Influence												Spearman Correlation <sup>a</sup>
	None				Little/Fair Amount				Great Amount				
	2.0 to 2.9		3.0 to 4.0		2.0 to 2.9		3.0 to 4.0		2.0 to 2.9		3.0 to 4.0		
	N	%	N	%	N	%	N	%	N	%	N	%	
Friends (outside the Community College)	11	17	29	27	43	67	69	64	10	16	9	8	-.2148*
Friends/Classmates at the Community College	11	17	31	29	46	72	75	70	7	11	1	1	-.2133*
High School Counselors	35	55	64	62	24	38	38	37	5	8	2	2	-.0855
High School Teachers	38	59	68	65	21	33	34	32	5	8	3	3	-.0649
Community College Counselors	34	53	49	48	23	36	42	41	7	11	12	12	-.0369
Mother	10	16	24	23	33	52	47	45	21	33	34	32	-.0289
Father	15	23	29	28	33	52	50	48	16	25	25	24	-.0279
Siblings	28	44	47	45	27	43	52	50	8	13	6	6	-.0159
Community College Teachers	26	41	43	41	31	48	57	54	7	11	6	6	-.0147

<sup>a</sup>N = 142

\* = Variables are significantly related (level of significance &lt; .05)

influential/does not apply, (2) during grammar school, (3) during the first three years of high school, (4) during senior year of high school, (5) while at Triton College. Table 19 presents a comparison of the times when significant others are most influential in the respondents' selection of four-year institutions. In general, the results from questionnaire item Q-4 are directly related to the nature of the significant others used in the questionnaire: Respondents indicate that their friends and classmates at Triton College are most influential during their year(s) at Triton, and that high school teachers and counselors are most influential during their years in high school.

During the first three years of high school, respondents are primarily influenced by their high school teachers and counselors. Results indicate that, during these years, parents together with high school teachers and counselors have a greater influence on females than on males. During the senior year of high school, respondents are primarily influenced by their mothers, friends (outside the community college), and high school teachers and counselors. High school teachers and counselors are influential to almost the same degree for both males and females at this time. However, results show that mothers and especially friends (outside the community college) are significantly more influential for females than for males. Women are influenced by their friends and the colleges their friends plan to attend. These results are consistent with the findings of Murphy (1981) which indicate that high school seniors perceive their friends as a major source of influence

Table 19

Time Periods When Significant Others are Most Influential in Transfer School Selection

Significant Other	Time Periods														Totals <sup>a</sup>	
	During First 3 Years of H.S.				During Senior Year of H.S.				While at Triton College							
	Male		Female		Male		Female		Male		Female					
	N	%	N	%	N	%	N	%	N	%	N	%				
Mother	4	6	14	14	20	28	38	38	24	33	34	34	134	77		
Friends (outside the Community College)	5	7	5	5	21	29	44	44	26	40	27	27	128	74		
Friends/Classmates at the Community College	2	3	4	4	2	3	9	9	45	63	62	61	124	72		
Father	3	4	13	13	23	32	29	29	17	24	28	28	113	66		
High School Counselors	7	10	19	19	28	39	41	41	3	4	2	2	100	58		
Community College Teachers	1	1	1	1	1	1	1	1	43	60	47	47	94	55		
High School Teachers	7	10	17	17	26	37	38	38	3	4	1	1	92	54		
Community College Counselors	1	1	0	0	1	1	1	1	38	53	49	49	90	52		
Siblings	5	7	5	5	12	17	22	22	19	27	17	17	80	47		

<sup>a</sup>Unduplicated responses

along with their parents. The results also support the findings of Gilmour, Spiro, and Dolich (1978) and Litten, Sullivan, and Brodigan (1983) which show that parents are an important influence in the early stages of the college choice process in that they set the major boundaries for the college search. In addition, these results indicate that women are greatly influenced by parents and friends and, in fact, are more dependent on their parents than are men as reported by Litten (1978a) and Manski and Wise (1983).

While at the community college, respondents are primarily influenced by their classmates and the teachers and counselors at the community college. Results indicate that at this time, community college teachers, friends (outside the community college), and siblings are significantly more influential for males than females. Male respondents report that their community college teachers are more influential on their selection of transfer schools than are their community college counselors. Female respondents report that their community college counselors are slightly more influential than the community college teachers.

Male respondents indicate that their mothers are most influential during their year(s) at Triton (33%), whereas their fathers are most influential during their senior year of high school (32%). Female

respondents indicate that their mothers are most influential during their senior year of high school (38%), while their fathers are influential to almost the same degree during their senior year of high school (29%) as they are during their year(s) at Triton (28%). Men report that friends outside the community college are most influential during their year(s) at Triton (40%), while women respondents report that friends outside the community college are most influential during their senior year of high school (44%).

Summary. This analysis of Objective 1 reveals that community college transfer students occasionally consult friends, classmates, and parents for information about four-year colleges and universities. They discuss transfer schools only minimally with their teachers and counselors at both the high school and the community college. Students also indicate that these teachers and counselors, especially at the high school level, have little influence on their choice set of colleges. Students from high-income families are more likely to discuss transferring with their mothers, friends, and classmates, while students from low-income families are more likely to consult primarily with their friends. Students from low-income families are more likely to be influenced by their mothers, whereas students from high-income families are more likely to be influenced by their mothers and fathers. Students whose fathers have attended college are more likely to discuss transferring with their friends, parents, and classmates and to be greatly influenced by their parents. Students whose fathers have not attended



college are more likely to discuss transfer schools with their friends, classmates, and mothers and to be greatly influenced by their mothers. Transfer students with higher community college GPAs are more likely to discuss four-year schools primarily with their friends; however, they are more likely to be influenced in their selection of colleges by their mothers. Transfers with lower community college GPAs are more likely to discuss transferring primarily with their mothers and to be greatly influenced by them. Community college transfers receive the most valuable information about four-year colleges and universities from their friends and classmates. Females are much more likely than males to be influenced by their parents and to rate information from their parents as very valuable. However, all students report that their parents have the greatest influence on their choice of transfer schools.

During the first three years of high school, parents, high school teachers and counselors have a greater influence on females than on males. During senior year, mothers and especially friends are more influential for females than for males. During the time at the community college, community college teachers, friends, and siblings are significantly more influential for males than for females. Male students are more influenced by their community college teachers, whereas female students are more influenced by their community college counselors.

Objective 2: To determine which four-year college characteristics are most important to community college students by the end of the search stage, prior to applying to their choice set of institutions.

Objective 2 involves the determination of college characteristics considered most important to community college transfer students in their selection of four-year institutions.

Respondents are asked to select and rank the three most important college characteristics from a list of 10 characteristics which include institutional type and size, total cost of attendance, availability of financial aid, location, on-campus residence halls, and availability of a specific program or department. Results from questionnaire item Q-5 indicate that the Availability of a Specific Program or Department (72%), Total Cost of Attendance (70%), and Location of Campus (60%) are the characteristics considered most important by respondents during their selection of transfer schools. These results are consistent with the findings of Gilmour, Spiro, and Dolich (1978) and Hartsell (1972) which indicate that the three most important factors to be considered in college choice are desirable curriculum, cost, and location. College characteristics considered least important by respondents are Large Student Body (defined as over 10,000 students)(3%), Small Student Body (defined as under 2,000 students)(6%), On-Campus Residence Halls (7%), and Private or Religiously Affiliated Institution (9%). Table 20 presents a rank order of the college characteristics considered most important by respondents.

Table 21 provides a comparison of the college characteristics ranked as the three most important by sex of the respondent. Results indicate that the top three characteristics considered most important by

Table 20

College Characteristics Considered Most Important

College Characteristic	Rank Order							
	Most Important		Second Most Important		Third Most Important		Total	
	N	%	N	%	N	%	N	%
Availability of Specific Department or Program	85	49	19	11	21	12	125	72
Total Cost of Attendance	34	20	50	29	37	21	121	70
Location of Campus	17	10	39	23	48	28	104	60
Availability of Financial Aid	17	10	29	17	19	11	65	38
Public/State Institution	10	6	9	5	11	6	30	17
Medium-Sized Student Body	3	2	9	5	16	9	28	16
Private Institution	4	2	4	2	8	5	16	9
On-Campus Residence Halls	0	0	3	2	9	5	12	7
Small Student Body	3	2	5	3	2	1	10	6
Large Student Body	0	0	4	2	2	1	6	3

males are the same three characteristics selected by females. Both groups consider total college cost, program availability, and location to be the most important factors in college selection. Results also indicate that male students are more likely than female students to consider the availability of financial aid as important in the selection of a transfer school; female students are more likely than male students to consider a private institution. These results are consistent with recent studies (Lewis & Morrison, 1975; Litten, 1978a) that indicate that women are more likely than men to consider geographical location in the college selection process. They also support the findings of Lewis and Morrison (1975) that women are equally likely as men to be concerned about the cost of attending college. The results of this study do not agree with the findings of Chapman and Johnson (1979) and Cooperative Institutional Research Program (CIRP) data (Astin et al., 1971, 1976, 1978) which indicate that female students are more likely than male students to select colleges based on the availability of specific academic programs. Females may have a better idea of what they want to major in while in high school (Astin, et al., 1971, 1976, 1978; Response Analysis Corporation, 1978), but males catch up at the community college and view the availability of certain programs or departments as slightly more important than the females.

A comparison of the most important college characteristics with family income is found in Table 22. As might be expected, the results show that students from low-income families are more likely to consider

Table 21

College Characteristics Ranked Most Important According to Gender

College Characteristic	Respondents			
	Male		Female	
	N	%	N	%
Total Cost of Attendance	48	68	73	72
Availability of Specific Department or Program	53	75	72	71
Location of Campus	41	58	63	62
Availability of Financial Aid	31	44	34	33
Medium-Sized Student Body	9	13	19	19
Public/State Institution	15	21	15	15
Private Institution	2	3	14	14
Small Student Body	2	3	8	8
On-Campus Residence Halls	5	7	7	7
Large Student Body	5	7	1	1

financial aid availability, public institutions, and on-campus housing as important factors in college selection. Students from high-income families are more likely to consider the location of the campus and the size of the student body as important factors. These results differ from Litten's (1978a) finding that location is a greater concern among blue collar and minority families.

Table 23 provides a comparison of the college characteristics considered most important with the respondents' community college GPA. Results show that students with lower GPAs at the community college are more likely to consider the location of the campus as important in the choice of a transfer school, whereas students with higher GPAs at the community college are more likely to consider the availability of a specific program or department as important. Since community college students with lower GPAs may not meet the qualifications for entry to some four-year colleges or into specific academic programs, they may choose their colleges on the basis of location. Their college choices are also limited by the total cost of attendance in conjunction with the availability of financial aid. Students with higher GPAs at the community college may have a better idea of their intended major and determine their choice set on the basis of the availability of specific programs. These results are consistent with the finding of Zemsky and Oedel (1983) which indicates that less able students are reluctant to travel as far to college as are more capable students.

Table 22

College Characteristics Considered Most Important According to  
Family Income

College Characteristic	Respondents			
	Under \$30,000		Over \$30,000	
	N	%	N	%
Availability of Specific Department or Program	49	74	66	71
Total Cost of Attendance	44	67	69	74
Availability of Financial Aid	39	59	24	26
Location of Campus	32	48	60	65
Public/State Institution	14	21	12	13
On-Campus Residence Halls	7	11	4	4
Medium-Sized Student Body	4	6	21	23
Private Institution	4	6	11	12
Small Student Body	3	5	7	8
Large Student Body	2	3	4	4

Table 23

College Characteristics Considered Most Important According to  
Community College GPA

College Characteristic	Respondents			
	2.0 to 2.9		3.0 to 4.0	
	N	%	N	%
Availability of Specific Department or Program	43	67	81	76
Total Cost of Attendance	43	67	77	72
Location of Campus	42	66	60	56
Availability of Financial Aid	24	36	40	37
Public/State Institution	11	17	18	17
Medium-Sized Student Body	11	17	17	16
Private Institution	9	14	7	7
Small Student Body	4	6	6	6
Large Student Body	3	5	3	3
On-Campus Residence Halls	2	3	10	9



A comparison of the most important college characteristics with the parents' level of education is provided in Table 24. Results indicate few differences between the characteristics chosen by respondents with college-educated parents and those selected by respondents whose parents have no college education. Students whose parents have not attended college are more likely to consider the total cost of attendance an important factor. This result supports the findings of Chapman and Johnson (1979), and MacDermott, Conn, and Owen (1987) which indicate that students whose parents did not attend college are more concerned about cost than students whose parents did attend college.

Summary. An analysis of Objective 2 finds that community college transfer students consider program availability, cost, and location the most important factors in college choice. Males are more likely than females to consider the availability of financial aid as important; females are more likely than males to consider a private institution. Not surprisingly, students from low-income families are more likely to consider the availability of financial aid an important consideration in transfer school selection. Students from high-income families are more likely to consider campus location and institutional size as important factors. Students who have lower GPAs at the community college are more likely to consider location as important, whereas students with higher GPAs are more likely to consider program availability as important.

Objective 3: To determine the role of four-year college communication strategies in the search phase: (a) to determine which four-year college communication strategies are influential for community

Table 24

College Characteristics Considered Most Important According to  
Parents' Level of Education

College Characteristic	Respondents			
	No College		Some College	
	N	%	N	%
Total Cost of Attendance	152	75	84	66
Availability of Specific Department or Program	150	74	90	71
Location of Campus	124	61	72	57
Availability of Financial Aid	77	38	48	38
Public/State Institution	37	18	20	16
Medium-Sized Student Body	35	17	20	16
Private Institution	14	7	17	13
On-Campus Residence Halls	13	6	8	6
Small Student Body	9	4	11	9
Large Student Body	3	1	8	6

college students during the search stage; and (b) to determine when during the search stage they are most influential.

Objective 3 involves an analysis of services and sources of information offered by four-year colleges to community college transfer students. The objective also considers the time at which these services and sources of information are most influential. The degree of helpfulness of each service and information source is used to determine the influence each has on the transfer school selection process.

Respondents are asked to determine the helpfulness of each college service and information source using this scale: (1) didn't receive information/didn't take advantage of, (2) of little help, (3) somewhat helpful, and (4) very helpful. Results from questionnaire item Q-8 show that the College Catalog (3.029 mean), Brochures about Colleges and Academic Programs (3.012), and Information about a Major or Academic Program (2.954) are ranked as "somewhat helpful" during the transfer school selection process (see Table 25). The majority of college services which involve college personnel in activities designed to meet the "special needs" of transfer students (i.e., on-campus interview with an admission counselor, on-campus programs, campus tours) are all ranked extremely low (1.316 to 2.087) by the respondents. None of the information sources or college services was ranked by respondents as "very helpful" (4.0 or above) indicative of the undecided nature and work schedules of the majority of community college students. Results indicate that females are much more likely than males to find all college services and sources of information very helpful in college choice,

but especially printed materials, including the college catalog, which describe colleges and their academic programs and which focus on specific majors. Males are more likely to view this recruitment literature only as somewhat helpful. Males are also more likely to consider financial aid information of little help in the selection of a four-year college. These results do not support the findings of Litten and Brodigan (1982), Maguire and Lay (1981), and Rowe (1980) which indicate that financial aid ranks as the most important information needed by students in the college choice process. While these findings may be valid for high school students, community college students--who have already completed the college enrollment process once--now consider academic offerings as most important. These results, however, contradict Lenning and Cooper's (1978) study of college sophomores which finds the transferability of courses to be the most important information needed in college selection. Table 25 also indicates the degree of helpfulness attributed to four-year college services and sources of information by respondents during the transfer school selection process. The services and sources of information indicated as "other" by respondents include admission requirements (4%), relatives (2%), athletic coaches, college alumni, off-campus admission, and overnight visit.

Table 26 provides a comparison of the degree of helpfulness of college services and information sources with family income. Results indicate that transfer students from high-income families are more likely to find the college catalog and information on a specific major

Table 25

Helpfulness of College Services/Sources of Information on Transfer School Selection

College Services and Sources of Information	Degree of Helpfulness													Mean <sup>a</sup>
	(2) Of Little Help				(3) Somewhat Helpful				(4) Very Helpful					
	Male		Female		Male		Female		Male		Female			
	N	%	N	%	N	%	N	%	N	%	N	%		
College Catalog	8	11	8	8	24	34	37	36	24	34	47	46	3.029	
Brochures about Colleges and Academic Programs	9	13	14	14	32	45	35	35	18	25	45	45	3.012	
Information on a Major or Academic Program	8	11	6	6	32	45	34	33	13	18	51	50	2.954	
Information on Course Transferability	10	14	15	15	19	27	30	29	18	25	36	35	2.647	
Financial Aid Information	17	24	14	14	14	20	27	27	14	20	30	30	2.433	
On-Campus Visit/Tour	12	17	8	8	15	21	25	25	5	7	24	24	2.087	
Information on Careers and Job Placement	10	14	18	18	11	16	20	20	5	7	18	18	1.930	
On-Campus Interview with an Admission Counselor	11	16	8	8	10	14	20	20	4	6	20	20	1.873	
Special On-Campus Program	10	14	12	12	8	11	16	16	5	7	13	13	1.717	
Other	2	5	1	2	2	5	1	2	1	3	6	11	1.316	

<sup>a</sup>Scale: (2) of little help, (3) somewhat helpful, (4) very helpful

or academic program most helpful in college choice. Not surprisingly, students from low-income families are more likely to report financial aid information as most helpful.

Table 27 presents a comparison of the degree of helpfulness of college services and information sources with the respondents' GPA earned at the community college. Results show that transfers with low GPAs at the community college are more likely to find all college services and information sources helpful, with the college catalog and information on a specific major or academic program considered very helpful in transfer school selection.

Comparisons of the helpfulness of college services and sources of information with the father's level of education (Table 28) and the mother's level of education (Table 29) are provided. Results indicate that all transfers regardless of level of parental education find the college catalog to be the most helpful source of information in college selection. Students whose fathers have not attended college are more likely to find financial aid information very helpful in college choice, probably a proxy for low family income. Transfers whose mothers have not attended college are also more likely to find financial aid information helpful in selection of a transfer school.

Respondents also indicate when college services and information sources are most influential in the four-year college selection process using these choices from questionnaire item Q-9: (1) not influential/does not apply, (2) during grammar school, (3) during the first three

Table 26

Helpfulness of College Service/Sources of Information on Transfer School Selection According to  
Family Income

College Services and Sources of Information	Degree of Helpfulness											
	Of Little Help				Somewhat Helpful				Very Helpful			
	Under \$30,000		Over \$30,000		Under \$30,000		Over \$30,000		Under \$30,000		Over \$30,000	
	N	%	N	%	N	%	N	%	N	%	N	%
College Catalog	5	7	9	10	25	37	31	33	25	37	42	45
Brochures about College and Academic Programs	9	14	13	14	23	35	38	41	25	38	35	38
Financial Aid Information	11	17	17	18	12	18	24	26	28	42	15	16
Information on a Major or Academic Program	5	7	9	10	21	31	39	42	25	37	36	39
Information on Careers and Job Placement	13	20	12	13	9	14	20	22	11	17	10	11
Information on Course Transferability	7	10	15	16	19	28	27	29	18	27	31	33
On-Campus Visit/Tour	7	11	9	10	18	27	19	20	10	15	17	18
On-Campus Interview with an Admission Counselor	7	10	10	11	12	18	15	16	10	15	14	15
Special On-Campus Program	11	16	9	10	7	10	15	16	10	15	8	9

Table 27

Helpfulness of College Services/Sources of Information on Transfer School Selection According to  
Community College GPA

College Services and Sources of Information	Degree of Helpfulness											
	Of Little Help				Somewhat Helpful				Very Helpful			
	2.0 to 2.9		3.0 to 4.0		2.0 to 2.9		3.0 to 4.0		2.0 to 2.9		3.0 to 4.0	
	N	%	N	%	N	%	N	%	N	%	N	%
College Catalog	7	11	9	8	21	33	38	36	28	44	43	40
Brochures about College and Academic Programs	5	8	18	17	28	44	38	36	25	40	37	35
Financial Aid Information	11	17	20	19	13	21	28	26	18	29	24	23
Information on a Major or Academic Program	4	6	10	9	22	35	43	40	27	43	36	34
Information on Careers and Job Placement	7	11	20	19	14	22	16	15	9	14	14	13
Information on Course Transferability	14	22	10	9	12	19	35	33	23	37	31	29
On-Campus Visit/Tour	4	6	16	15	16	25	22	21	12	19	17	16
On-Campus Interview with an Admission Counselor	6	10	13	12	9	14	19	18	8	13	16	15
Special On-Campus Program	6	10	16	15	10	16	12	11	7	11	11	10



Table 28

Helpfulness of College Services/Sources of Information on Transfer School Selection According to  
Father's Level of Education

College Services and Sources of Information	Degree of Helpfulness											
	Of Little Help				Somewhat Helpful				Very Helpful			
	No College		Some College		No College		Some College		No College		Some College	
	N	%	N	%	N	%	N	%	N	%	N	%
College Catalog	6	7	7	10	31	34	25	35	40	44	28	39
Brochures about College and Academic Programs	11	12	11	15	36	40	26	37	35	39	24	34
Financial Aid Information	17	19	10	14	19	21	21	30	27	30	14	20
Information on a Major or Academic Program	8	9	6	8	33	37	28	39	36	40	23	32
Information on Careers and Job Placement	18	20	9	13	14	16	14	20	14	16	9	13
Information on Course Transferability	11	12	12	17	24	27	20	28	31	34	20	28
On-Campus Visit/Tour	10	11	8	11	23	26	13	18	15	17	12	17
On-Campus Interview with an Admission Counselor	12	13	6	8	12	13	16	23	12	13	9	13
Special On-Campus Program	13	14	8	11	11	12	11	15	7	8	9	13

Table 29

Helpfulness of College Services/Sources of Information on Transfer School Selection According to  
Mother's Level of Education

College Services and Sources of Information	Degree of Helpfulness											
	Of Little Help				Somewhat Helpful				Very Helpful			
	No College		Some College		No College		Some College		No College		Some College	
	N	%	N	%	N	%	N	%	N	%	N	%
College Catalog	7	6	7	13	41	37	17	30	46	41	25	45
Brochures about College and Academic Programs	15	14	8	14	42	38	22	39	41	37	21	38
Financial Aid Information	17	15	11	20	27	24	14	25	31	28	12	22
Information on a Major or Academic Program	9	8	5	9	40	36	25	45	44	39	18	32
Information on Careers and Job Placement	19	17	8	14	20	18	10	18	17	15	6	11
Information on Course Transferability	16	14	8	14	35	31	12	21	34	30	19	34
On-Campus Visit/Tour	12	11	6	11	29	26	10	18	17	15	11	20
On-Campus Interview with an Admission Counselor	13	12	6	11	23	21	6	11	17	15	6	11
Special On-Campus Program	17	15	5	9	17	15	6	11	11	10	6	11

years of high school, (4) during senior year of high school, (5) while at Triton College. Males indicate that all college services and information sources are more influential while at the community college with the exception of an on-campus interview with an admission counselor which had a slightly higher degree of influence during the senior year of high school. Females indicate that brochures about college and academic programs, the college catalog, and financial aid information are more influential during the senior year of high school than while at the community college; all other services and information sources are more influential for female students during their year(s) at the community college. This seems to indicate that females may begin the college search process earlier than males. For more than one half of the females (54%) and almost two thirds of the males (62%), a campus visit or tour is significantly more influential while at the community college than at any time during high school. As might be expected, information about course transferability is much more influential in the transfer school selection process when respondents are at the community college. Table 30 presents a comparison of the times when college services and information sources are most influential in the respondents' selection of four-year institutions.

Table 31 provides a comparison of the college services and sources of information which have no influence on the selection of schools to which respondents could transfer. Respondents indicate that Special On-Campus Programs (54%), On-Campus Interview with an Admission

Table 30

Time Periods When College Services/Sources of Information are Most Influential in Transfer School Selection

College Services and Sources of Information	Time Periods											
	During First 3 Years of H.S.				During Senior Year of H.S.				While at Triton College			
	Male		Female		Male		Female		Male		Female	
	N	%	N	%	N	%	N	%	N	%	N	%
College Catalog	0	0	4	4	22	31	46	46	34	48	39	39
Brochures about Colleges and Academic Programs	2	3	7	7	26	37	47	47	31	44	38	38
Financial Aid Information	0	0	4	4	18	25	35	35	27	38	29	29
Information on a Major or Academic Program	2	3	5	5	22	31	41	41	28	40	40	40
Information on Careers and Job Placement	2	3	5	5	22	31	41	41	28	40	40	40
Information on Course Transferability	0	0	8	8	9	13	11	11	22	31	35	35
On-Campus Visit/Tour	2	3	2	2	3	4	21	21	44	62	54	54
On-Campus Interview with an Admission Counselor	0	0	2	2	15	21	30	30	12	17	26	26
Special On-Campus Program	2	3	4	4	9	13	22	22	14	20	27	27
Other	2	3	4	4	8	11	18	18	14	20	17	17

Counselor (50%), and Information on Course Transferability (49%) have no influence on the selection of a four-year institution. About one-third of the female respondents (31%) and 37% of the male respondents report that financial aid information is not influential in the transfer school selection process. Men are less likely than women to consider special programs, an interview with an admission officer, and information on course transferability, careers, job placement, and academic programs as influential factors.

Summary. An analysis of Objective 3 finds that community college transfer students consider the college catalog, brochures about colleges and their academic programs, and information on a specific major or program to be somewhat helpful in the transfer school selection process. College services and types of information other than these three are not used by transfers or are considered less helpful. Females are much more likely than males to find all college services and sources of information very helpful in college choice, but especially printed materials, including the catalog, which describe colleges, their academic programs, and specific majors. Males are more likely to consider financial aid information of little help and, in fact, not influential in the selection of a four-year school. As expected, students from low-income families are more likely to find financial aid information very helpful in college choice. Transfers with low community college GPAs are more likely to find all college services and information sources helpful, with the college catalog and information on a specific

Table 31

College Services/Sources of Information Which Have No Influence on  
Transfer School Selection

College Services and Sources of Information	Male		Respondents Female		Total	
	N	%	N	%	N	%
Special On-Campus Program	45	63	47	47	92	54
On-Campus Interview with an Admission Counselor	43	61	42	42	85	50
Information on Course Transferability	39	55	45	45	84	49
Financial Aid Information	26	37	31	31	57	33
On-Campus Visit/Tour	22	31	23	23	45	26
Information on a Major or Academic Program	17	24	14	14	31	18
Information on Career and Job Placement	17	24	14	14	31	18
College Catalog	14	20	11	11	25	15
Brochures about Colleges and their Academic Programs	11	16	8	8	19	11

major or academic program considered very helpful. Students whose parents have not attended college are more likely to find information on financial aid most helpful.

In terms of when services and information are most influential, males indicate that all four-year communication strategies, with the exception of an admissions interview, are more influential during their years at the community college. Females indicate that brochures about college and academic programs, the college catalog, and financial aid information are more influential during the senior year of high school. For a majority of students, a campus visit or tour is significantly more influential while at the community college than at any time during high school. Finally, community college transfer students are not influenced by special programs, admissions interviews, and course transferability information.

Objective 4: To examine the role of information-gathering activities in the search phase: (a) to determine which information-gathering activities are actually conducted during the search stage by community college transfer students; and (b) to determine when during the search stage they are most influential.

Objective 4 involves an analysis of all the information-gathering activities undertaken by community college students during the transfer school selection process. Information-gathering activities include the significant others who provide information about transfer schools (discussed in Objective 1) as well as the services and sources of information offered by four-year institutions (discussed in Objective

3). The objective also considers the time at which these activities are most influential.

Respondents are asked to determine the frequency of their discussions with significant others about transfer schools using this scale: (1) never, (2) once or twice, (3) occasionally, (4) frequently. A respondent who consulted with a significant other at least once is considered to have used this source of information. Results from questionnaire item Q-1 show that respondents use Friends (outside the community college) (93%), Friends/Classmates at the Community College (91%), Mother (90%), and Father (75%) as their main sources of information about four-year colleges and universities. Males are more likely than females to use their fathers and community college counselors in the college choice process. Even so, 39% of the male respondents and nearly half of the female respondents (49%) report never consulting with their community college counselors. A comparison of the use of significant others by respondents in transfer school selection is found in Table 32.

Respondents are asked to indicate whether or not they used or took advantage of various services and sources of information provided by four-year institutions. Results from questionnaire items Q-6 and Q-7 show that respondents use Brochures about Colleges and their Academic Programs (86%), College Catalogs (81%), Information on a Major or Academic Program (76%), Information on Course Transferability (64%), and Financial Aid Information (63%) as their major sources of information about four-year colleges and universities. Female students are much



Table 32

Use of Significant Others by Respondents in Transfer School Selection

Significant Other	Used/Provided Information						Not Used/Did Not Provide Information					
	Male		Female		Total		Male		Female		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Friends (outside the Community College)	68	96	94	91	162	93	3	4	9	9	12	7
Friends/Classmates at the Community College	63	87	95	93	158	91	9	13	7	7	16	9
Mother	61	85	96	93	157	90	11	15	7	7	18	10
Father	57	80	71	72	128	75	14	20	28	28	42	25
Siblings	47	66	69	70	116	68	24	34	30	30	54	32
Community College Teachers	45	63	56	55	101	58	27	38	46	45	73	42
Community College Counselors	44	61	51	51	95	55	28	39	49	49	77	45
High School Teachers	28	39	39	40	67	39	44	61	59	60	103	61
High School Counselors	26	36	41	42	67	39	46	64	57	58	103	61

more likely than male students to request and/or use the following in the transfer school selection process: information on course transferability, academic majors, and financial aid, the college catalog, and an interview with an admission counselor. Moreover, for every college service and source of information, females compose the larger percentage of users. These results confirm the findings of CIRP (Astin et al., 1971, 1976, 1978) and a national study of SAT takers (Response Analysis Corporation, 1978) which indicate that women are more likely than men to have a "definite idea" about their choice of college major. In addition, these results are consistent with the findings of Lewis and Morrison (1975) which report that white females consult more sources of information than do white males. Table 33 presents a comparison of the use of college services and information sources by respondents in transfer school selection.

Objective 4 also considers when information-gathering activities are most influential in the selection of four-year institutions. The time periods when significant others are most influential in transfer school selection is found in Table 19. Friends (outside the community college), the major source of information used by respondents, influence men and women at different times. Male students report that friends are most influential during their year(s) at the community college (40%), whereas female students report that friends are most influential during their four years of high school (49%). Friends/Classmates at the Community College, the second major source of information, are most

Table 33

Use of College Services/Sources of Information in Transfer School Selection

College Services and Sources of Information	Used/Requested						Not Used/Not Requested					
	Male		Female		Total		Male		Female		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Brochures about Colleges and Academic Programs	58	82	91	88	149	86	13	18	12	12	25	14
College Catalogs	53	75	87	85	140	81	18	25	16	15	34	19
Information on a Major or Academic Program	45	63	86	85	131	76	26	37	15	15	41	24
Information on Course Transferability	41	58	71	69	112	64	30	42	32	31	62	36
Financial Aid Information	40	56	68	67	108	63	31	44	33	33	64	37
On-Campus Visit/Tour	28	39	43	42	71	41	43	61	60	58	103	59
Special On-Campus Program	25	35	41	41	66	38	46	65	60	59	106	62
On-Campus Interview with an Admission Counselor	21	30	41	40	62	36	50	70	62	60	112	64
Information on Careers and Job Placement	21	30	39	38	60	35	50	70	63	62	113	65

influential in transfer school selection during the respondents' year(s) at the community college (62%). More than one half of the female respondents (52%) and 34% of the male respondents indicate that Mother is most influential during their high school years. Father is also most influential in the selection of four-year institutions by respondents during their four years of high school (40%).

Results indicate that almost all college services and sources of information are most influential for males during their year(s) at the community college and are most influential for females during their four years in high school--again indicative of their earlier start in the college search process. While at the community college, males are more likely to be influenced by a campus visit or tour and financial aid information. During their high school years, females are more likely to be influenced by a campus visit or tour, the college catalog, and information about academic programs, financial aid, careers and job placement. The time periods when college services and sources of information are most influential in the selection of transfer schools by respondents is found in Table 30.

Summary. The analysis of Objective 4 includes information about the information-gathering activities discussed in Objective 1 and the college services and sources of information discussed in Objective 3. This analysis finds that male transfer students are more likely than female transfers to use their fathers and community college counselors in college choice. Female students are more likely to request and use

all college services and information sources, but in particular, information on course transferability, academic majors and financial aid, the college catalog, and an admissions interview. Male transfers are influenced by their friends during their years at the community college, whereas female transfers are influenced by their friends during their high school years. Parents, especially the father, are most influential in transfer school selection when students are in high school. Almost all college services and sources of information are most influential for males during their years at the community college, and are most influential for females during their four years in high school.

Objective 5: To determine the number of institutions in the community college students' choice set and when the choice set is formed.

Objective 5 involves the determination of the number of four-year institutions to which community college transfer students will apply. It also considers the time when this decision is made.

Respondents are asked to indicate the number of four-year colleges or universities to which they will apply. Results from questionnaire item Q-27 indicate that two thirds of the respondents plan to apply to two or three institutions and that 85% plan to apply to at least two schools and possibly as many as five. According to the calculated mean, students will apply to an average 2.146 schools. CIRP data report that 61% of freshmen at four-year colleges and 57% of university freshmen applied to 2-5 schools (Astin et al., 1987). Table 34 shows the predicted number of applications to four-year institutions.

Table 34

Predicted Number of Applications to Four-Year Institutions

Number	Respondents					
	Male		Female		Total	
	N	%	N	%	N	%
1	6	11	10	12	16	12
2 - 3	36	66	55	67	91	66
4 - 5	10	18	16	20	26	19
6 - 7	1	2	1	1	2	1
8 or more	2	4	0	0	2	1

Mean = 2.146

Standard Deviation = .692

N = 137

Table 35 presents the predicted number of applications according to the respondents' reported date of transfer. Results show that male students who will transfer immediately plan to apply to more schools than female students. More than one fourth of the men (27%) who will transfer immediately, as compared with only 7% of the women, plan to apply to as many as four or five schools. Respondents who will transfer sometime in the future plan to apply to more schools than those transferring immediately. Only 7% of the future transfers are considering only one application as compared with 19% of the immediate transfers.

In order to determine when the choice set of colleges is formed, two factors are considered: (1) when the decision was made to pursue a bachelor's degree, and (2) when the decision was made of four-year colleges to which to apply. Respondents are asked to indicate when they made the decision to obtain a bachelor's degree using these choices: (1) during grammar school, (2) during the first two years of high school, (3) during junior year of high school, (4) during senior year of high school, (5) during the summer after high school, (6) while at Triton College. Results from questionnaire item Q-18 indicate that this decision is made most often while at the community college (45%), during senior year of high school (22%), and during the first two years of high school (14%). There are no significant differences as to the time of the decision for either males or females. Table 36 presents the time periods when the decision to obtain the baccalaureate is made. Respondents also are asked to determine when they made the decision of four-

Table 35

Predicted Number of Applications to Four-Year Institutions According to Date of Transfer

Number	Date of Transfer											
	Immediate Transfer						Future Transfer					
	Male		Female		Total		Male		Female		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
1	5	23	5	17	10	19	1	3	5	10	6	7
2 - 3	8	36	23	77	31	60	28	85	32	62	60	71
4 - 5	6	27	2	7	8	15	4	12	14	27	18	21
6 - 7	1	5	0	0	1	2	0	0	1	2	1	1
8 or more	2	9	0	0	2	4	0	0	0	0	0	0



year schools to which to apply using these choices: (1) during grammar school, (2) during the first two years of high school, (3) during junior year of high school, (4) during senior year of high school, (5) during the summer after high school graduation, (6) while at Triton College, (7) haven't finalized my selection of colleges yet. Results from questionnaire item Q-10 show that this decision is made very late in the college choice process. While 30% of the respondents report that this decision was made while at the community college, almost one half (49%) report that their selection of colleges to which to apply has not yet been determined. These results are consistent with the conclusions of R. Chapman (1984) who contends that high school students make college choice decisions in late spring of their senior year. The time periods when the decision to apply to specific colleges is made are found in Table 37.

Summary. An analysis of Objective 5 finds that community college transfer students will apply to an average of 2.146 schools, although 85% are considering as many as five schools. Male students who plan to transfer immediately indicate that they will apply to more schools than do female students. Students who will transfer sometime in the future also plan to apply to more schools than those transferring immediately. Community college students most often make the decision to obtain the baccalaureate while at the community college. They decide on the schools to which they will apply during their last semesters at the community college.

Table 36

Time Periods When Decision to Obtain Baccalaureate is Made

Time Periods	Respondents					
	Male		Female		Total	
	N	%	N	%	N	%
During Grammar School	3	4	5	5	8	5
During First 2 Years of High School	9	13	15	15	24	14
During Junior Year of High School	5	7	12	12	17	10
During Senior Year of High School	17	24	20	20	37	22
During the Summer after High School Graduation	4	6	4	4	8	5
While at Triton College	33	47	45	45	78	45

Table 37

Time Periods When Decision to Apply to Selected Colleges is Made

Time Periods	Respondents					
	Male		Female		Total	
	N	%	N	%	N	%
During Grammar School	0	0	0	0	0	0
During First 2 Years of High School	0	0	1	1	1	1
During Junior Year of High School	2	3	8	8	10	6
During Senior Year of High School	8	11	16	16	24	14
During the Summer after High School Graduation	0	0	3	3	3	2
While at Triton College	24	34	27	26	51	30
Haven't Finalized Selection of Colleges Yet	36	51	48	47	84	49

N = 173

## Chapter Overview

This chapter identifies the five research objectives of the current study and presents the results of the data collection relevant to each. The data show that community college transfer students only occasionally consult friends, classmates, mother, and father for information about four-year colleges and universities. Community college transfer students report that they receive the most valuable information about college from their friends, community college classmates and teachers, and mothers. Females are more likely than males to discuss transfer schools with their mothers, friends, classmates, and high school counselors. They are also much more likely to be influenced significantly by their mothers, fathers, and friends, and to consider the information from their parents as very valuable in the college choice process. Males are more likely than females to use their fathers and community college counselors in college selection, although they are more influenced by their community college teachers. Significant others influence men and women at different times during the college choice process. Parents, high school teachers and counselors have greater influence on females during their first three years of high school, while mothers and friends, in particular, are significantly more influential during the senior year of high school. Community college counselors, friends, and siblings are significantly more influential for males while at the community college. Males are influenced by their friends during their years at the community college, while females are influenced by their friends during their high school years.

Transfer students from higher-income backgrounds are more likely to discuss four-year institutions with their mothers, friends, and classmates and to be influenced in their decisions by their mothers and fathers. Transfers from lower-income backgrounds are more likely to discuss transfer schools primarily with their friends and to be influenced by their mothers.

Community college students who have college-educated parents are more likely to discuss transferring with their friends, parents, and classmates and to be influenced in their decisions by both parents. Students whose parents have not attended college are more likely to consult with their friends, classmates, and mothers, and to be greatly influenced by their mothers.

Transfer students who have higher GPAs at the community college are more likely to discuss four-year colleges primarily with their friends, while students with lower GPAs are more likely to consult primarily with their mothers. All students regardless of GPA at the community college are influenced in the college selection process by their mothers.

Transfer students report that the most helpful services or sources of information provided by four-year institutions are college catalogs, brochures describing colleges and their academic programs, and information about specific majors or programs. These, moreover, are the sources of information actually requested and used by transfers in college choice. The majority of transfers find a campus tour and

information on course transferability significantly more influential during the time they are at the community college. Females are more likely than males to request and use all college services and information sources, but particularly information on course transferability, academic majors, financial aid, in conjunction with the college catalog and an interview with an admission counselor. While females are influenced by their friends and the majority of these college services and information sources during their years in high school, males are influenced by their friends and the majority of these services while at the community college.

Students from lower-income families are more likely to consider financial aid information very helpful in the college selection process. Students from higher-income families are more likely to find the college catalog helpful. In addition, all students regardless of parental education or community college GPA are more likely to consider the college catalog as the most helpful source of information in college choice.

The college characteristics considered most important by students in transfer school selection are program availability, total cost, and campus location. The college characteristics considered least important are institutional size (large or small), residence halls, and private institutions. Males and students from lower-income backgrounds are more likely to view the availability of financial aid as most important. Students from higher-income backgrounds are more likely to consider location and institutional size as important factors. Students with

lower community college GPAs are more likely to rate location as important, whereas students with higher community college GPAs are more likely to rate the availability of a specific program or department as important.

The majority of transfer students in this study plan to apply to at least two schools and possibly as many as five. Males who will transfer immediately plan to apply to more schools than females who will transfer immediately. The decision to obtain the baccalaureate is made most often by transfers while at the community college. Most students determine their choice set of colleges while at the community college, just prior to actual transfer.

Chapter V provides a summary of this study, discussion and conclusions related to studies reported in Chapter II, and specific recommendations based on the findings.

## CHAPTER V

### SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

The rationale for this study, review of related literature, methodology, and data analysis are presented in Chapters I, II, III, and IV. Chapter V presents an overall summary of the study, discussion, conclusions, and recommendations relating to two- and four-year institutional policy development as well as for future research on transfer students in the college choice process.

#### Summary of the Study

The major purpose of this study is to examine the information-gathering activities used by community college transfer students who are involved in the search stage of the college choice process. A total of 176 questionnaires from students enrolled in transfer curricula at Triton College (River Grove, Illinois) and who intend to transfer to a four-year institution for the Fall 1986 Semester or later are used in this study.

This study, which is exploratory research into the process and activities that make up the search stage of college choice, addresses five objectives:

1. To examine the role of significant others in the search phase:
  - (a) to determine which significant others are influential sources of



information for community college students during the search stage; and (b) to determine when during the search stage they are most influential.

2. To determine which four-year college characteristics are most important to community college students by the end of the search stage, prior to applying to their choice set of institutions.

3. To examine the role of four-year college communication strategies in the search phase: (a) to determine which four-year college communication strategies are influential for community college students during the search stage; and (b) to determine when during the search stage they are most influential.

4. To examine the role of information-gathering activities in the search phase: (a) to determine which information-gathering activities are actually conducted during the search stage by community college transfer students; and (b) to determine when during the search stage they are most influential.

5. To determine the number of institutions in the community college students' choice set and when the choice set is formed.

This study examines the information-gathering process involved in the search stage of college choice using Hossler's Integrated Theory-Driven Model of College Choice (1986). Hossler explains the three phases of college choice (Predisposition, Search, Choice) through the use of four categories of influencers: genetic endowment and special abilities, environmental conditions and events, learning experiences, and task approach skills. During the search stage, environmental

conditions and events (attitudes of significant others and college communication strategies which affect the college choice decision) and learning experiences are the primary influencers. Genetic endowment and special abilities and task approach skills (actual information-gathering activities performed) are secondary influencers. The search stage begins when students decide to pursue a postsecondary educational option and ends with the students applying to their choice set of institutions.

An instrument was developed by the researcher to collect the data necessary to address the five research objectives. The 27-item questionnaire provides data on demographic and student background (Q-11 to Q-21), influence of significant others (Q-1 to Q-4) and college services and information sources (Q-6 to Q-9), four-year college characteristics (Q-5), and determination of the choice set of colleges (Q-10, Q-24 to Q-27).

The instrument and cover letter were mailed in February 1986 to 600 students at Triton College who met the stated criteria. The first mailing yielded 155 responses. A follow-up letter and replacement questionnaire were sent three weeks later to the 472 subjects who did not respond to the initial mailing. The follow-up mailing yielded 105 responses. Of the 260 responses received, 176 were usable, representing a 29% rate of return. Of the 176 respondents submitting usable questionnaires, 72, or 41%, intend to transfer to a four-year college or university for fall 1986 and 104, or 59%, intend to transfer at a later date.

The following observations provide a summary of the data analysis gathered for this study.

Search Activities and Significant Others. Community college transfer students consult friends, classmates at the community college, mother, and father most often for information about four-year colleges and universities. These discussions of transfer schools, however, occur only occasionally. Transfer students receive the most valuable information about colleges from their friends, community college classmates and teachers, and mothers. However, the information provided by these significant others is considered most often only somewhat valuable. Many students only minimally discuss transfer schools with their community college teachers and counselors. Although community college students are more influenced by their parents, friends and classmates, the degree range is moderate or less in most instances.

Community college transfer students find college catalogs, brochures about colleges and available academic programs, and information about specific majors or academic programs to be the most helpful information provided by four-year colleges and universities. However, this information is considered by most students only to be somewhat helpful in the college selection process. College catalogs and brochures about academic programs and specific majors are the sources of information actually requested and used by transfer students in college choice. Most transfers report that campus tours and information on course transferability are significantly more influential while they are at the community college than at any previous time.

Search Activities and Gender. Female transfer students are more likely than male transfer students to discuss four-year colleges and universities with their mothers, friends, classmates, and high school counselors. They are also much more likely to be influenced significantly by their mothers, fathers, and friends, and to consider the information from their parents as very valuable in the college choice process.

Male transfer students are influenced by their friends and a majority of the services and information provided by four-year institutions during their years at the community college, whereas female transfer students are influenced by their friends and the majority of college services and information sources during their years in high school. Females are much more likely than males to request and use all college services and information sources, especially information on course transferability, academic majors, and financial aid, in conjunction with the college catalog and an interview with an admission counselor.

Search Activities and Family Income. Transfer students from higher-income families are more likely to discuss four-year colleges with their mothers, friends, and classmates and to be influenced in their decisions by their mothers and fathers. Transfers from lower-income families are more likely to consult primarily with their friends and to be influenced by their mothers. Students from lower-income families are more likely to consider financial aid information very helpful in college choice. Students from higher-income families are more likely to find the undergraduate college catalog helpful.

Community college students who have college-educated parents are more likely to discuss transfer schools with their friends, parents, and classmates and to be greatly influenced in their decisions by both parents. Students whose parents have not attended college are more likely to consult with their friends, classmates, and mothers and to be greatly influenced by their mothers.

Search Activities and Academic Performance. Transfer students who have higher GPAs at the community college are more likely to discuss four-year colleges primarily with their friends, while students with lower community college GPAs are more likely to consult primarily with their mothers. All students regardless of the GPA earned at the community college are influenced in the college selection process by their mothers.

College Characteristics and Transfer Students. During the search stage, community college transfer students find program availability, total cost, and campus location to be the most important characteristics about four-year institutions. Those factors considered least important are institutional size (large or small), residence halls, and private institutions. College characteristics considered most important by certain types of community college transfer students are availability of financial aid (males; students from lower-income families), institutional size (students from higher-income families), location (students from higher-income families; students with lower community college GPAs), and program availability (students with higher community college GPAs).

College Choice and Transfer Students. Most community college transfer students plan to apply to at least two schools and possibly as many as five schools. Transfer students make the decision to obtain the baccalaureate while enrolled at the community college. The majority of students determine their choice set of colleges during their years at the community college, just prior to actual transfer.

### Discussion

In view of the results of this study, this discussion considers major findings regarding: (1) significant others who provide valuable information about four-year colleges and universities; (2) the role of counselors in college choice; (3) information requested from four-year institutions during the search stage; and (4) the most important college characteristics during the search stage. These findings are directly related to studies reviewed in Chapter II. This section concludes with a discussion of major findings which relate to the role of two-year colleges and four-year institutions in college choice.

### Significant Others Consulted

The results of this study paint a very bleak picture of the information-gathering activities undertaken by community college transfer students. Although community college students state that their friends and classmates are their primary sources of information about four-year colleges and universities, they consult with them only occasionally. Although community college students contend that the

information supplied by these friends and classmates is the most valuable information they receive about schools to which they might transfer, they rate this information as only somewhat valuable. In addition, community college students admit that their friends and classmates have little influence on their choice set of colleges. These findings seem to indicate that college choice is not a methodical process and that these students are not making well-informed decisions about colleges, confirming Hossler's (1984a) contention that the search stage is "often characterized by incomplete information, ineffective actions, and poor decision making" (p. 11).

Parents are consulted by community college students as secondary sources of information. Similar to the above scenario, parents are only occasionally consulted and their information is considered of little value. Community college students rate parental influence on college choice the highest, although for the majority of students this means that parents exert only a fair amount of influence. The fact that mothers who are not college educated are frequently consulted for information about colleges also suggests that college choice for these students is not a well-informed process. Results indicate that community college students are greatly influenced by their parents, even if they have not attended college. This is not surprising since the great majority of students in this study were of traditional college age. The finding that female students are influenced significantly more by their mothers than their fathers is also not surprising in that

mothers--even in two-parent families--are influential in major family decisions.

Mothers play a more significant role in college choice for community college transfer students from lower-income backgrounds, not only because they make the family decisions, but also because they may be the only parent in the family. These students are more likely to discuss four-year institutions with their friends, but their decisions are influenced by their mothers. Mothers play a similar role in the college selection process for students whose parents have not attended college. These students consult with their friends and classmates about colleges, but the final decisions are greatly influenced by their mothers.

The influence of siblings in the college choice process has been overlooked in prior research. Although the instrument used in this study did not ask respondents to indicate the existence of older siblings, one third of the community college students indicated that they were significantly influenced by their brothers and sisters. This finding indicates that for some students siblings may play a vital role in the college choice process by supplying younger brothers and sisters with first-hand information not only about colleges, but also about the college selection process.

The results of this study are consistent with the findings of Astin, Harway, and McNamara (1976), Chapman and Johnson (1979), and Murphy (1981) which indicate that parents and friends are the most



important sources of information for college-bound high school seniors. In the process of making a second college enrollment decision, community college transfer students consult the same major significant others as do high school seniors. Unlike the findings of Boyer (1987), Gilmour, Spiro, and Dolich (1978), and Litten, Sullivan, and Brodigan (1983) which report that parents are the most important source of information for high school seniors, this study finds that friends both at and outside the community college are the most important source of information for community college transfer students. The results of this study differ from the findings of Astin, Harway, and McNamara (1976) that men discuss post-high-school plans more often with their fathers, while women consult more often with their mothers. In the current study, both male and female transfers discuss transfer schools with their mothers significantly more frequently than with their fathers. Similar to the findings of Litten (1978a), this study reports that a high percentage of women cite friends as an important source of information.

Results of this study are also consistent with the findings of Murphy (1981), Tillery (1973), and Trent and Medsker (1969) which indicate that parents are the most influential sources of information for high school students. For the community college student, mother has the greatest influence on the selection of transfer schools, followed by father and then friends and classmates. Unlike the findings of Gilmour, Spiro, and Dolich (1978) and Litten, Sullivan, and Brodigan (1983) which indicate that parents are an important influence in the early stages of

the college choice process for high school seniors, this study finds that for community college transfer students, high school teachers and counselors are more influential than parents throughout the high school years. These authors suggest that at some early date parents set major boundaries for the college search in terms of cost, location, and quality. If, as Murphy (1981) reports, more than 70% of college-bound high school seniors first consider going to college during grammar school, then parents probably set these parameters during this same early period. However, in this study, almost one half (46%) of the respondents report first considering a baccalaureate degree sometime during high school and, moreover, only 8% consider their parents as most influential during grammar school. Parents are slightly more influential in the college choice process for females during their senior year of high school. For males, mothers are more influential while at the community college and fathers are more influential during their senior year of high school. Similar to Litten's (1978a) finding that 60% of female high school students indicate their parents influenced their choice of college, this study finds that 58% of female transfers indicate their parents influenced their choice of transfer schools.

Finally, these results confirm that parental education is interrelated with both educational aspirations and the college enrollment decision as suggested by Manski and Wise (1983) and Tillery (1973). Community college students who plan to earn the baccalaureate are informed and encouraged by their college-educated parents, especially

their mothers. Transfer students, moreover, indicate that their college-educated parents greatly influence their college choice decisions.

### Role of Counselors

Counselors at both the high school and community college level cannot be considered major sources of information about four-year institutions for community college transfer students. Only a very small percentage of community college students frequently discuss transfer schools with either their high school or community college counselors. Many students, in fact, never discuss schools to which they might transfer with their community college counselors. Moreover, students feel that the transfer school information they receive from their teachers at the community college is slightly more valuable than the information provided by the counselors at their community college. Community college students who found high school counselors to be ineffective in the college choice process while in high school may transfer these feelings to the counselors at the community college. They, too, may be viewed as being overworked and not sufficiently informed. In addition, while teachers have high visibility for students, counselors at the community college are often located in remote corners of the campus, far removed from student traffic.

Community college students are influenced in their college choice decisions by their counselors at the community college, but the degree of influence is slight. Parents, friends, and even community college teachers and siblings are more influential than community college

counselors in the college selection process. Whether students perceive the counselors at their community college to be uninformed or simply difficult to locate, the fact remains that only half the students used their counselors in the transfer school selection process.

Prior research (Hossler, 1985; Litten, 1982) suggests that high school students from lower-income families are more likely than students from higher-income families to discuss colleges and universities with their high school counselors. This current study, however, finds that community college students from lower-income families are more likely not to consult with their high school counselors. This finding may suggest that community college students were disillusioned with their counselors in high school if they were denied admission to four-year colleges made attractive by the counselor or when their financial aid awards prohibited them from attending their first-choice college. On the other hand, community college students who had favorable dealings with their high school counselors may now feel that they know about and are capable of handling the admission and financial aid procedures without assistance.

Counselors influence men and women at different times during the college choice process. High school counselors and teachers have greater influence on females during their first three years of high school, whereas community college counselors are significantly more influential for males while at the community college. Males are also more likely than females to use their counselors at the community

college in the selection of four-year institutions, although they are influenced more by their community college teachers. This study finds that females consider the majority of sources of information about four-year colleges to be most influential during their years in high school. Female students at the community college may be more knowledgeable about the transfer school selection process and, therefore, less likely to consult their community college counselors for information.

Results of this study are consistent with the findings of Astin, Harway, and McNamara (1976), Boyer (1987), Litten (1978a), and Murphy (1981) which indicate that high school students do not consider their counselors to be an important influence in their choice of college. Counselors at both the high school and community college level have little influence and, in fact, are little used by community college students who are seeking a transfer school. The results of this study differ from the SCOPE study (Tillery, 1973) finding that, according to high school students, counselors rank second in helpfulness in choosing a college. The results of this study are consistent with the findings of Lewis and Morrison (1975) which indicate that men are more likely than women to consult with their high school counselors. Although more female than male students consult with their high school counselors about transfer schools, significantly more males than females discuss four-year institutions with their counselors at the community college.

### Most Requested College Information

Each year colleges spend thousands of dollars printing and distributing materials which they hope prospective transfer students find helpful and influential. In the process of making a second enrollment decision, community college transfer students indicate a need for specific information about four-year colleges and universities. The three sources of information transfers find most helpful are catalogs, general brochures which describe a college and list the available academic programs, and information which focuses on a particular academic major or program. Also helpful to the transfer student to a much lesser degree is information about course transferability and financial aid, and a campus visit or tour. Both male and female transfer students use these five sources of information provided by four-year institutions and find them to be the most helpful. This study finds that although community college students consider college cost an important factor in college choice, they do not rate financial aid information as very helpful. This suggests that for some undecided students, it may be too early for college cost to play a role in the selection process. In fact, prior research (Freeman, 1984; Jackson and Chapman, 1984) indicates that financial aid impacts the choice stage rather than the search stage. College services and sources of information neither used by transfer students nor considered helpful in college selection are career and job placement information, an on-campus interview with an admission counselor, and special on-campus programs, such as an open house.

Results of this study are consistent with the findings of Gilmour, Spiro, and Dolich (1978) and Rowe (1980) which indicate that high school students consider information about academic programs and college costs to be the most important information needed during the search stage of the college choice process. For the community college transfer student, information about academic programs is most important and college catalogs or brochures which describe these programs are considered to be the most helpful. Transfers are usually more sure of their intended major or program than are college-bound high school seniors. Unlike the findings of Boyer (1987) and Litten and Brodigan (1982) which indicate that high school students rank financial aspects about colleges (costs of tuition, fees, books; financial aid to students) the most important type of information, this study finds that for community college transfer students, financial aid information ranks below information on academic programs and course transferability in terms of importance. Community college students may be more knowledgeable about the financial aid process than about where they will transfer--a situation which may result in the expressed need for general information about colleges rather than for financial aid information. The findings of this current study also differ with the findings of Lenning and Cooper (1978) who report the information needs of college sophomores. These authors indicate that the most important information needed by college sophomores includes transferability of courses (out of the college), courses required for completion of the major, the point at which the major must be declared

to graduate on time, and how classes are taught. The information needs of college sophomores enrolled in four-year institutions appear to differ significantly from the needs of community college students who are involved in the process of transferring from one institution to another.

### Most Important College Characteristics

Four-year colleges and universities can be described in many ways according to their type, size, and features. The college characteristics considered most important by community college students during transfer school selection are program availability, total cost, and campus location. The characteristics considered least important by transfers include institutional size (large or small student body), availability of on-campus residence halls, and institutional type (public vs. private). Community college students primarily seek transfer schools which offer specific academic programs, are affordable, and located within commuting distance from home. Students often choose to attend two-year colleges to take advantage of their many attractive features: convenient location, low cost, and open-door policy for the undecided. After two years of general studies and exploration into majors, many community college students then seek four-year institutions which offer their intended major, but which also have characteristics similar to the community college in terms of cost and location. It is suggested that schools which have these characteristics are considered in the college choice process regardless of their size or the availability of on-campus housing.



Prior research finds that program availability together with cost and location are the three most important institutional factors in the high school student's decision to attend a particular college or university (Gilmour, Spiro, & Dolich, 1978; Hossler, 1984a; Jackson, 1982). This study supports this research and, in particular, the findings of Gilmour, Spiro, and Dolich (1978) which indicate that during the search stage the rank order of factors according to importance are academic programs, cost, and location. In this study, community college transfer students assign the same order of importance to these same three characteristics. Other studies (Chapman & Johnson, 1979; Davis & Van Dusen, 1975) find academic programs and job-related benefits to be the most important factors students consider in choosing a college. The factor of cost is considered most important in studies by Litten and Brodigan (1982) and Maguire and Lay (1981). According to Jackson (1982) and Tillery's SCOPE data (1973), location exerts the strongest influence on a student's choice set of colleges. Similar to Tillery's (1973) finding that 50% of high school seniors indicate location as a major influence in their choice of a college, this study reports that 60% of community college transfer students indicate campus location as a major influence in their choice of a four-year institution. This study also supports the findings of Hartsell (1972) which indicate that according to a population of community college transfer students, the three most important factors to be considered in college choice are desirable curriculum, location, and cost.

This study finds that location is considered one of the three most important college characteristics by 62% of the female transfers and 58% of the male transfers. This result supports the finding of Lewis and Morrison (1975) that location is a more important factor in college selection for women than for men. The results of this study differ from CIRP data (Astin et al., 1971, 1976, 1978) that women students are more likely than men to select colleges on the basis of availability of academic programs. The results of this current study indicate that slightly more males than females consider the availability of academic programs one of the three most important characteristics.

#### Role of Colleges

The results of this study portray community colleges in a very positive light. They are perceived as instrumental in the college choice process undertaken by their students. Community college students select the four-year schools to which they will apply very late in the college choice process. This delay in decision making provides community colleges with the opportunity to show students that the baccalaureate is within their reach.

In addition, community colleges are fulfilling their role in the educational development of transfer students. Almost half of the students in this study made the decision to transfer to a four-year institution while at the community college. Thus, community colleges are serving as second-chance institutions for some students who would not have attended college immediately after high school, if four-year institutions were the only options.

The results of this study also indicate that community college transfer students are not influenced by the special activities developed by four-year institutions for their recruitment. Transfer students learn about four-year colleges and universities through discussions with their parents, friends and classmates, and through printed materials such as college catalogs and informational brochures. They do not, however, take advantage of the on-campus services which are provided by four-year institutions and designed especially for transfers. Community college transfers are not influenced by their visits to the college campus for a tour, special program, or interview with an admission officer. Transfers may feel that some of these activities are unnecessary and time-consuming, and that family and friends can provide more accurate and accessible information about colleges.

### Conclusions

This study provides descriptive data regarding the information community college transfer students gather during the search stage of the college choice process. A description of the search stage as undertaken by transfer students is presented in this section.

During high school. Community college transfer students enter the search stage during their high school years. It is at this time that they begin to discuss four-year colleges and universities with their parents, and high school and neighborhood friends. However, throughout the search stage, parents and friends are never consulted more than occasionally. In addition, parents and friends never have more than a

slight influence on the students' choice set of colleges. Mothers who are not college educated are often consulted by transfer students, all of which suggests that college choice for these students is not a well-informed process.

Parents of transfer students are influential in the early stages of the college choice process in that they set the major boundaries for the search. Boundaries regarding college cost, location, and quality are defined by parents primarily during the students' senior year of high school. Both mother and father are most influential in the selection of four-year institutions during the students' four years of high school.

Friends made prior to entering the community college are also an important influence during the early stages of the college selection process in that they provide transfer students with alternatives. Transfers weigh the alternatives of various lifestyles (e.g., full-time employment) and colleges attended by friends in order to determine their preferred choices. High school and neighborhood friends are most influential during the students' high school years, especially the senior year.

Transfer students perform many college-search activities while in high school, but rarely seek out the services provided by their counselors. Many students, in fact, never consult their high school counselors about schools to which they might transfer. Transfers use the information gathered through their infrequent discussions about

colleges with friends and parents to make many college choice decisions prior to entering the community college.

Women perform most of the information-gathering activities while they are in high school; men wait until they enroll at the community college. Women discuss four-year colleges with their mothers, fathers, and friends throughout high school, and are influenced in their college decisions by these people throughout their years in high school. At this time, women are also influenced by the information and services provided by four-year colleges and universities, especially printed materials such as brochures about colleges and academic programs, catalogs, and financial aid information.

The decisions to obtain the baccalaureate as well as to apply to selected colleges are made earlier by women than by men. More women than men make the decision to earn the bachelor's degree prior to their senior year of high school. Many more women than men select the four-year institutions to which they will apply prior to entering the community college. This suggests that women know which schools they will transfer to prior to enrolling at the community college.

While at the community college. The search stage for transfer students continues throughout their years at the community college. At this time, transfers begin to discuss four-year institutions with their new friends and classmates. Once again, these discussions are infrequent, producing information that transfers consider only slightly valuable. Although these friends provide transfers with an evaluation

of the results produced through their own decision making about four-year colleges and universities, their influence on transfers is slight.

The decision to transfer to a four-year institution is made by most students, especially men, while attending the community college. Men also consult their community college teachers, counselors, and fathers for information more often than women.

Although the majority of transfers are not influenced by their community college counselors, students from lower-income families and those whose parents are not college-educated are influenced to a small degree by these counselors. Transfers from lower-income families have had little contact with their high school counselors and now seek those who will help them catch up in the college selection process. Transfers whose parents have not attended college seek those who can provide accurate information about four-year colleges and the steps involved in the application process.

During the search stage, transfer students prioritize various characteristics that describe four-year institutions. They rate program availability and total college costs as the characteristics most important in the selection of a transfer school. These two factors are considered most important regardless of the student's gender, grade point average, family income, or parental level of education. Transfer students rank the availability of financial aid lower in importance than college cost at this point in the college choice process, which may mean that while total cost affects the determination of the choice set of colleges, matriculation is determined by the financial aid proposal.

Transfers request and use descriptive information supplied by four-year institutions, especially catalogs, brochures about available academic programs, and information about specific majors or programs. Transfers find this information to be somewhat helpful in determining their choice set of colleges. On the other hand, transfers infrequently visit college campuses to attend special programs or to interview with an admission counselor, and they are not influenced by these activities. They are also not influenced by the course transferability information furnished by four-year institutions. Transfers from lower-income families and those whose parents have not attended college are more likely to consider financial aid information helpful.

Transfer students select their choice set of colleges very late in the college selection process. They decide on the schools to which they will apply during their last semesters at the community college. Women enrolled in their last semester plan to apply to fewer four-year institutions than men in their last semester. This suggests that women conduct more thorough searches than do men, resulting in smaller choice sets of colleges.

The search stage ends for transfer students with the formation of the choice set of colleges to which they will apply.

Several decision-making models of riskless choice are presented in Chapter II. This description of the search stage as undertaken by community college students seems to fit into Simon's (1955) satisficing model. Community college students, like the decision makers in Simon's

model, appear to settle for satisfactory alternatives, even though a better alternative might be found if they were to exhaust all alternatives. Despite the large number of available four-year institutions, community college students are attracted to colleges which offer specific academic programs, are affordable, and located close to home. As they select the colleges to which they will apply, they eliminate institutions lacking these characteristics from their choice sets. The unmethodical process described above which results in poorly informed decisions is similar to the haphazard assessment of alternatives in Simon's "good enough" model.

### Recommendations

Based upon the conclusions and observations from this study, three categories of recommendations are made: (1) for policy development at two-year institutions, (2) for policy development at four-year institutions, and (3) for future research.

#### Policy recommendations: Two-year institutions

The following recommendations for policy development at two-year institutions are offered by the researcher:

1. It is recommended that two-year colleges include a tour of the counseling center and information about the services provided by the counselors in the orientation program for new students at the beginning of each semester. These activities would orient new students to the counseling center and staff at the community college. As a result,



community college students would be more knowledgeable about the location of the office and the availability of services, which could lead to increased usage.

2. Two-year colleges should provide a more in-depth orientation to the counseling staff for students in transfer-oriented programs as they begin their third semester. The results of this study indicate that most community college students make decisions about obtaining the baccalaureate and selecting four-year institutions just prior to actual transfer. Thus, an orientation to the counseling staff at the start of the third semester would provide students considering transferring with information about those who could assist them in their decision making.

3. It is recommended that two-year colleges provide students in transfer-oriented programs with the dates of on-campus visits by representatives from four-year colleges and of future open house programs at local colleges. A newsletter could be mailed to these students at the beginning of each semester. Since students determine their choice set of colleges during their years at the community college, information regarding visits by college representatives and dates of open house programs would assist in transfer school selection. A mailed newsletter rather than posters at the community college would better insure that all students received this information.

4. Two-year colleges should provide an opportunity for current students to learn more about four-year colleges directly from former students who transferred to in-state or out-of-state colleges.

5. Two-year colleges should offer a series of "how-to" workshops for transfer students covering topics such as how to choose a college and how to read a college catalog.

6. It is recommended that two-year colleges develop a series of mini-sessions on careers which would highlight careers requiring the baccalaureate degree.

Policy recommendations: Four-year institutions

The following recommendations for policy development at four-year institutions are made based upon the conclusions and observations derived from this study:

1. It is recommended that four-year colleges and universities distribute descriptive materials which accurately inform prospective transfers from community colleges about their institutions and available academic programs, course transferability policies, and total cost of attendance.

2. It is also recommended that four-year colleges and universities distribute materials according to a timetable, sending the catalog and descriptive information about available academic majors at the time of inquiry, and information about financial aid and the net cost of attendance at a later time.

3. Four-year colleges and universities should provide local high school counselors, especially those at schools with large female populations, with information about transfer admission requirements, academic majors, and, if available, course equivalencies developed with area community colleges.

4. Four-year colleges and universities should include detailed maps in their publications which would indicate their location relative to local community colleges, such that the distance between schools is apparent. Results from this study show that during college search, community college transfer students find campus location to be one of the most important factors about four-year institutions. Maps indicating the location and distance of four-year institutions to local community colleges, therefore, would assist students in transfer school selection.

5. It is recommended that four-year colleges and universities encourage community college students to visit their campuses with their parents, especially their mothers.

6. Four-year colleges and universities should develop course equivalencies with local community colleges for those majors chosen by the largest number of students who transfer from each community college to the four-year institution.

7. Policymakers at four-year colleges and universities need to analyze the effectiveness of their current on-campus activities designed to inform and recruit transfer students.

8. Policymakers at four-year colleges and universities need to develop more effective ways to use their personnel in the recruitment of transfer students from community colleges. Efforts need to be directed toward the search phase if these institutions wish to expand their pool of transfer applicants.

### Research recommendations

The following recommendations for future research are made based upon the conclusions and observations derived from this study:

1. It is recommended that additional studies be undertaken to explore the search activities performed by community college transfer students. Longitudinal studies which cover the entire college choice process and those which include student interviews would provide additional insights into the search stage of the college choice process.

2. Additional studies should explore search activities according to gender. This study illustrates that major differences exist in the ways males and females gather information about four-year institutions. Current research, moreover, indicates that females in high school complete the information collection process earlier than males. Future studies could compare the information-gathering activities of men and women both at the high school and community college levels.

3. Future investigations should examine the college selection process undertaken by transfer students using existing models of college choice. Models such as those developed by Hossler (1984a), Jackson (1978), and R. Chapman (1984) for use with high school students could be tested with transfer student populations.

4. Additional efforts should be directed toward the development of more theory-based models of college choice, which could be used with populations of high school seniors as well as transfer students.

5. Additional studies should explore the college choice process undertaken by high school seniors who plan to attend community colleges. Current research focuses exclusively on students who intend to matriculate to four-year colleges and universities. Students considering two-year colleges are usually excluded from these studies.

6. Future research should explore the information needs of high school students who plan to attend two-year colleges, and of community college students who plan to transfer to four-year colleges and universities, during all three stages of the college choice process.

7. Researchers should analyze the effectiveness of activities sponsored by four-year institutions in the recruitment of transfer students.

8. Researchers should examine the college selection process undertaken by transfer students using more sophisticated methodologies such as multivariate analysis and causal modeling. \*

9. This study should be replicated with an instrument that includes information about the composition of the respondents' families and additional questions about specific information needs.

This study represents a starting point for further research in the field of college choice with specific application to the community college transfer student. Studies undertaken as a result of these recommendations will provide educators at all types of higher education institutions with new and valuable insights into the ways transfer students learn about and select four-year institutions.

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## APPENDIX A

Triton College, located in River Grove, Illinois, is a publicly supported comprehensive community college which was founded in 1964. Its district encompasses 63 square miles in the western suburbs of Chicago and includes over 338,000 residents.

Each semester the College offers over 100 different associate degree programs to 26,000 students, 15,000 of whom are degree-seeking students. Currently, 57% of Triton students are enrolled in career-oriented programs. The College has three major goals: (1) to offer university transfer courses through its School of Arts and Sciences; (2) to offer health, technology, and business instruction through its School of Career Education; and (3) to offer career advancement, personal enrichment, and industry training coursework and seminars through its School of Continuing Education.

Triton College has 234 full-time faculty members with an additional 476 part-time faculty who teach credit courses and 561 who teach continuing education courses. The College campus consists of 17 principal buildings on 101 acres.



## APPENDIX B

TRITON COLLEGE  
TRANSFER STUDENT QUESTIONNAIRE

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Q-1 As of today, how often have you discussed four-year colleges which you might transfer to with the following people? (Circle appropriate response)

- 1 = NEVER  
2 = ONCE OR TWICE  
3 = OCCASIONALLY  
4 = FREQUENTLY

a. Mother . . . . .	1	2	3	4
b. Father . . . . .	1	2	3	4
c. Brothers/Sisters . . . . .	1	2	3	4
d. Friends (outside Triton) . . . . .	1	2	3	4
e. Friends/Classmates at Triton . . . . .	1	2	3	4
f. High School Teachers . . . . .	1	2	3	4
g. High School Counselors . . . . .	1	2	3	4
h. Teachers at Triton . . . . .	1	2	3	4
i. Counselors at Triton . . . . .	1	2	3	4

Q-2 How would you evaluate the quality of information you have received from the following people about four-year colleges? (Circle response)

- 1 = NO INFORMATION RECEIVED  
2 = OF LITTLE VALUE  
3 = SOMEWHAT VALUABLE  
4 = VERY VALUABLE

a. Mother . . . . .	1	2	3	4
b. Father . . . . .	1	2	3	4
c. Brothers/Sisters . . . . .	1	2	3	4
d. Friends (outside Triton) . . . . .	1	2	3	4
e. Friends/Classmates at Triton . . . . .	1	2	3	4
f. High School Teachers . . . . .	1	2	3	4
g. High School Counselors . . . . .	1	2	3	4
h. Teachers at Triton . . . . .	1	2	3	4
i. Counselors at Triton . . . . .	1	2	3	4

Q-3 How would you rate the degree of influence each of these people has on your selection of colleges to apply to? (Circle response)

- 1 = NO INFLUENCE  
2 = LITTLE INFLUENCE  
3 = FAIR AMOUNT OF INFLUENCE  
4 = GREAT AMOUNT OF INFLUENCE

a. Mother . . . . .	1	2	3	4
b. Father . . . . .	1	2	3	4
c. Brothers/Sisters . . . . .	1	2	3	4
d. Friends (outside Triton) . . . . .	1	2	3	4
e. Friends/Classmates at Triton . . . . .	1	2	3	4
f. High School Teachers . . . . .	1	2	3	4
g. High School Counselors . . . . .	1	2	3	4
h. Teachers at Triton . . . . .	1	2	3	4
i. Counselors at Triton . . . . .	1	2	3	4

Q-4 When has each of these people been the most influential during your selection of colleges to apply to? (Circle only one response per item)

- 1 = NOT INFLUENTIAL/DOES NOT APPLY  
 2 = DURING GRAMMAR SCHOOL  
 3 = DURING THE FIRST THREE YEARS OF HIGH SCHOOL  
 4 = DURING SENIOR YEAR OF HIGH SCHOOL  
 5 = WHILE AT TRITON

a. Mother . . . . .	1	2	3	4	5
b. Father . . . . .	1	2	3	4	5
c. Brothers/Sisters . . . . .	1	2	3	4	5
d. Friends (outside Triton) . . . . .	1	2	3	4	5
e. Friends/Classmates at Triton . . . . .	1	2	3	4	5
f. High School Teachers . . . . .	1	2	3	4	5
g. High School Counselors . . . . .	1	2	3	4	5
h. Teachers at Triton . . . . .	1	2	3	4	5
i. Counselors at Triton . . . . .	1	2	3	4	5

Various characteristics of four-year colleges are listed below:

1. Type: Public or State Institution
2. Type: Private or Religiously Affiliated
3. Size: Small Student Body (under 2,000 students)
4. Size: Medium-sized Student Body (2,000 to 10,000 students)
5. Size: Large Student Body (over 10,000 students)
6. Total Cost of Attendance
7. Availability of Financial Aid
8. Location of Campus
9. On-Campus Residence Halls
10. Availability of a specific Program or Department

Q-5 Which of the above characteristics are most important to you in selecting a four-year college? (Put number of item in appropriate box)

☐ MOST  
IMPORTANT

☐ SECOND  
MOST IMPORTANT

☐ THIRD  
MOST IMPORTANT

Q-6 Various services offered by four-year colleges are listed below.

Did you attend or take advantage of these services before you applied for admission? (Circle appropriate response)

- 1 = NO  
 2 = YES

a. On-Campus Visit/Tour . . . . .	1	2
b. On-Campus Interview with an Admission Counselor . . . . .	1	2
c. Special On-Campus Program (Open House, etc.) . . . . .	1	2
d. Other (Specify _____) . . . . .	1	2

Q-7 Various sources of information about four-year colleges are listed below. Did you request this information from colleges before you applied for admission? (Circle appropriate response)

1 = NO  
2 = YES

a. College Catalog . . . . .	1	2
b. Brochures about Colleges and their Academic Programs . . . . .	1	2
c. Financial Aid Information . . . . .	1	2
d. Brochure about a Major or Academic Program . .	1	2
e. Information on Careers and Job Placement . . .	1	2
f. Information on Course Transferability . . . .	1	2

Q-8 How helpful has each of these sources of information been in your selection of four-year colleges to apply to? (Circle response)

1 = DIDN'T RECEIVE INFORMATION/DIDN'T TAKE ADVANTAGE OF  
2 = OF LITTLE HELP  
3 = SOMEWHAT HELPFUL  
4 = VERY HELPFUL

a. College Catalogs . . . . .	1	2	3	4
b. Brochures about Colleges and their Academic Programs . . . . .	1	2	3	4
c. Financial Aid Information . . . . .	1	2	3	4
d. Brochure on a Major/Academic Program . .	1	2	3	4
e. Information on Careers/Job Placement . .	1	2	3	4
f. Information on Course Transferability . .	1	2	3	4
g. On-Campus Visit/Tour . . . . .	1	2	3	4
h. On-Campus Interview with an Admission Counselor . . . . .	1	2	3	4
i. Special On-Campus Program . . . . .	1	2	3	4
j. Other (Specify _____) .	1	2	3	4

Q-9 When have each of the following been the most influential to you during your search of four-year colleges to apply to? (Circle one response per item)

1 = NOT INFLUENTIAL/DOES NOT APPLY  
2 = DURING GRAMMAR SCHOOL  
3 = DURING THE FIRST THREE YEARS OF HIGH SCHOOL  
4 = DURING SENIOR YEAR OF HIGH SCHOOL  
5 = WHILE AT TRITON

a. College Catalogs . . . . .	1	2	3	4	5
b. Brochures about Colleges and their Academic Programs . . . . .	1	2	3	4	5
c. Financial Aid Information . . . . .	1	2	3	4	5
d. Brochure on a Major/Academic Program . .	1	2	3	4	5
e. Information on Careers/Job Placement . .	1	2	3	4	5
f. Information on Course Transferability . .	1	2	3	4	5
g. On-Campus Visit/Tour . . . . .	1	2	3	4	5
h. On-Campus Interview with an Admissions Counselor . . . . .	1	2	3	4	5
i. Special On-Campus Program . . . . .	1	2	3	4	5
j. Other (Specify _____) .	1	2	3	4	5

continued on next page

Q-10 When did you finally decide on which four-year colleges to apply to?  
(Put number of item in box)

- 1 = DURING GRAMMAR SCHOOL
- 2 = DURING THE FIRST TWO YEARS OF HIGH SCHOOL
- 3 = DURING THE JUNIOR YEAR OF HIGH SCHOOL
- 4 = DURING THE SENIOR YEAR OF HIGH SCHOOL
- 5 = DURING THE SUMMER AFTER HIGH SCHOOL GRADUATION
- 6 = WHILE AT TRITON
- 7 = HAVEN'T FINALIZED MY SELECTION OF COLLEGES YET

Insert the appropriate number in the boxes below.

Q-11 Your Sex

- 1 = MALE
- 2 = FEMALE

Q-12 Your Age

- 1 = 17 TO 20
- 2 = 21 TO 24
- 3 = 25 TO 30
- 4 = OVER 30

Q-13 Your Ethnic Background

- 1 = WHITE/CAUCASIAN
- 2 = BLACK/AFRO-AMERICAN
- 3 = HISPANIC
- 4 = ASIAN-AMERICAN
- 5 = AMERICAN INDIAN
- 6 = OTHER

Q-14 Total Annual Family Income  
(Both parents)

- 1 = \$ 9,999 OR LESS
- 2 = \$10,000 TO \$29,999
- 3 = \$30,000 TO \$49,999
- 4 = \$50,000 TO \$69,999
- 5 = OVER \$70,000

Q-15 Your Final High School GPA

- 1 = BELOW C
- 2 = C
- 3 = C+
- 4 = B
- 5 = B+
- 6 = A

Q-16 Your Current GPA at Triton

- 1 = BELOW 2.0
- 2 = 2.0 TO 2.49
- 3 = 2.5 TO 2.99
- 4 = 3.0 TO 3.49
- 5 = 3.5 TO 4.00

- 1 = DURING GRAMMAR SCHOOL
- 2 = DURING THE FIRST TWO YEARS OF HIGH SCHOOL
- 3 = DURING THE JUNIOR YEAR OF HIGH SCHOOL
- 4 = DURING THE SENIOR YEAR OF HIGH SCHOOL
- 5 = DURING THE SUMMER AFTER HIGH SCHOOL GRADUATION
- 6 = WHILE AT TRITON

Insert the appropriate number in the boxes below.

Q-17 When did you first consider pursuing a bachelor's degree?

Q-18 When did you actually make the decision?

- 1 = GRADE SCHOOL
- 2 = SOME HIGH SCHOOL
- 3 = HIGH SCHOOL DIPLOMA
- 4 = BUSINESS OR TRADE SCHOOL
- 5 = SOME COLLEGE
- 6 = ASSOCIATE'S DEGREE
- 7 = BACHELOR'S DEGREE
- 8 = SOME GRADUATE OR PROFESSIONAL SCHOOL
- 9 = GRADUATE OR PROFESSIONAL SCHOOL
- 10 = DON'T KNOW

Insert the appropriate number in the boxes below.

Q-19 What is the highest level of education completed by your father or male guardian?

Q-20 What is the highest level of education completed by your mother or female guardian?

Q-21 To what extent have your parents encouraged you to pursue a bachelor's degree? (Put number of item in box)

- 1 = IN MY FAMILY, IT WAS ALWAYS EXPECTED THAT I WOULD GO TO COLLEGE.
- 2 = WHEN I WAS IN HIGH SCHOOL, MY PARENTS BEGAN TO ENCOURAGE ME TO CONSIDER COLLEGE.
- 3 = MY PARENTS HAVE ONLY RECENTLY ENCOURAGED ME TO CONTINUE MY EDUCATION.
- 4 = IN MY FAMILY, IT WAS NOT ASSUMED THAT I WOULD GO TO COLLEGE.
- 5 = OTHER (Specify \_\_\_\_\_)

Q-22 Do you plan to transfer to a four-year college for the Fall 1986 Semester? (Put number in box)

- 1 = NO
- 2 = YES

Q-23 If the above answer is NO, what are your future plans? (Put number in box)

- 1 = I PLAN TO TRANSFER TO A FOUR-YEAR COLLEGE SOMETIME IN THE FUTURE.
- 2 = I DO NOT PLAN TO TRANSFER TO A FOUR-YEAR COLLEGE.

continued on next page

Q-24 Have you recently applied to any four-year colleges for the Fall 1986 Semester? Do not consider applications sent while you were in high school. (Put number of item in box)

1 = NO  
2 = YES

☐

Q-25(A) If the above answer is YES, when did you apply to the first school?  
(Put number in box)

1 = AUGUST 1985  
2 = SEPTEMBER 1985  
3 = OCTOBER 1985  
4 = NOVEMBER 1985  
5 = DECEMBER 1985  
6 = JANUARY 1986  
7 = FEBRUARY 1986  
8 = OTHER (Specify \_\_\_\_\_)

☐

Q-25(B) How many four-year colleges have you applied to?  
(Write actual number in box)

☐

Q-26 As of today, are you still considering applying to any--or to any more-- four-year colleges? (Put number of item in box)

1 = NO  
2 = YES

☐

Q-27 If the above answer is YES, what is the actual number of four-year colleges you will apply to? (Put letter of item in box)

A = 1 SCHOOL  
B = 2 OR 3 SCHOOLS  
C = 4 OR 5 SCHOOLS  
D = 6 OR 7 SCHOOLS  
E = 8 OR MORE SCHOOLS

☐

THANK YOU FOR YOUR ASSISTANCE!

Please return this questionnaire by February 20th to:

Judith Becker  
Loyola University of Chicago  
Suite 613  
820 N. Michigan Avenue  
Chicago, Illinois 60611

## APPENDIX C



Judith Becker  
1432 Algonquin Road  
Des Plaines, Illinois 60016

February 10, 1986

Dear Triton Student:

Over the past several years, many books and articles have been written about how and why students select colleges. These studies examine the decisions high school seniors make about colleges based on what they've heard, read, and seen. What is missing from all of these studies are the decisions made by community college students who plan to transfer to four-year colleges and universities. No one has written about how and why community college transfer students select four-year schools. My study will focus exclusively on the decisions about college made by students at Triton College who plan to transfer for the fall 1986 semester.

Your name was randomly selected from all students currently enrolled in transfer programs at Triton. In order that the results of the study be considered significant, it is important that each questionnaire be completed and returned. It should take less than 15 minutes to complete the questionnaire.

You may be assured of complete confidentiality. The questionnaire has an identification number for mailing purposes only. This is so that your name may be checked off the mailing list when your questionnaire is returned. Your name will never be placed on the questionnaire.

It will be appreciated if you will complete the questionnaire before February 20th and return it in the enclosed envelope. The results of the research will be used to meet requirements for a graduate degree from Loyola University. They will also be made available to Mr. Maurice Lemoine, Vice President for Student Affairs at Triton, who has endorsed this survey.

I would be most happy to answer any questions you might have. Please write or call. The telephone number is (312)670-2900.

Thank you for your assistance.

Sincerely,

Judith Becker  
Ph.D. Candidate  
Loyola University of Chicago

## APPENDIX D

**Judith Becker**  
1432 Algonquin Road  
Des Plaines, Illinois 60016

March 4, 1986

Dear Triton Student:

About three weeks ago I wrote to you seeking information about your selection of four-year colleges to apply to. As of today, I have not received your completed questionnaire.

I have undertaken this study because I feel that the decisions made by community college students who plan to transfer to four-year colleges and universities are just as important as those decisions made by high school seniors. However, administrators in higher education today are not aware of these decisions because no one has written about how and why community college transfer students select four-year schools.

I am writing to you again because of the significance each questionnaire has to the usefulness of this study. Your name was randomly selected from all students currently enrolled in transfer programs at Triton. In order that the results of the study be considered significant, it is important that each questionnaire be completed and returned.

In the event that your questionnaire has been misplaced, a replacement is enclosed.

Your cooperation is greatly appreciated.

Sincerely,

Judith Becker  
Ph.D. Candidate  
Loyola University of Chicago

APPROVAL SHEET

The dissertation submitted by Judith Jean Lorenc Becker has been read and approved by the following committee:

Dr. Terry E. Williams, Director  
Associate Professor,  
Educational Leadership and Policy Studies  
Loyola University of Chicago

Dr. Donald R. Hossler  
Associate Professor,  
Higher Education and Student Affairs  
Indiana University

Dr. Jack A. Kavanagh  
Professor,  
Curriculum and Human Resource Development  
Loyola University of Chicago

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

April 21, 1988  
Date

Terry E. Williams  
Director's Signature